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# PENNSYLVANIA ANGLER



TEN CENTS

FALL FISH

JANUARY, 1939

P383



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BOARD OF FISH COMMISSIONERS



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Commissioner of Fisheries

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## EDITORIAL

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### ANGLERS KEY MEN IN COMMISSION'S WORK

IN reviewing the work accomplished by your Fish Commission during the past year, this thought comes forcibly to mind—"A chain is no stronger than its weakest link". Certainly, basing my opinion on the great cooperation given to the Commission by our licensed fishermen, the strongest link in fish conservation in Pennsylvania today is comprised of our army of more than 400,000 licensed anglers. Other links in this fishing chain are the hatcheries, the warden service, and the general administration of the fisherman's affairs. The support by the fishermen of the program for which they alone are responsible, since their license fees provide the fund under which it is accomplished, has been most deeply appreciated by their Board. After all, we, as representatives of the fishing public, are the servants of those who find sport and relaxation on streams and lakes. Naturally, the cooperation given us by the fishermen has proved one of our real incentives in carrying through our program.

I like to regard the licensed fisherman as a stockholder in the Fish Commission. He is, in reality, just that. His license fee is segregated in a special fund, known as the Fish Fund, and kept apart from other state monies for the sole purpose of bettering his sport. There can be little question that a vast majority of our anglers regard the fees they pay for licenses as investments in perpetuation of angling. They realize that, without the system of fine hatcheries which they own and control, fishing in a state so densely populated and industrialized as Pennsylvania, would soon become a thing of the past. For that among other reasons the license fee is paid gladly for the fisherman knows for exactly what purpose his money will be expended.

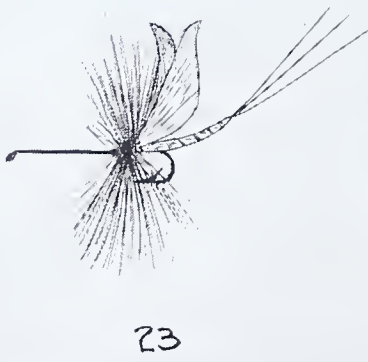
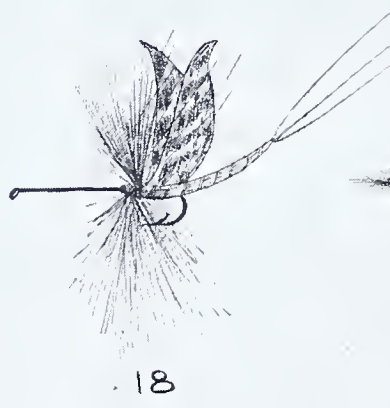
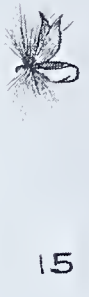
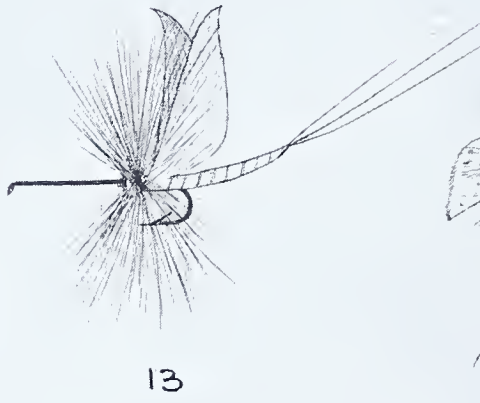
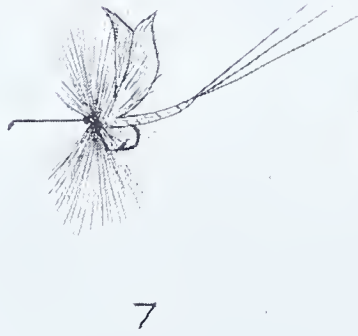
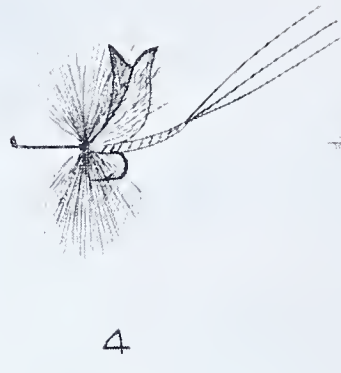
The enthusiastic interest in the Fish Commission shown by our anglers has been strongly evident during the past year. Their willingness to aid in stocking streams, to carry through stream improvement programs as a means to bettering their fishing, and the cordial manner in which clubs and individuals have cooperated in affecting legislation such as the new Fish Code—these phases of their support alone serve to tell the story. Without this cooperation, our drive for better fishing would eventually be all in vain. After all, any movement, conservation or otherwise, must have the utmost backing from those whom it primarily concerns.

We want you, the fishermen, to feel that this Commission is your Commission, just as so many of your fellows have made apparent during the past year, through their letters and visits to us at the office. You should feel that the investment you have made in your fishing license entitles you, as it surely does, to a closer association with those in charge of the work being done. We feel that way, and it makes us most happy to realize that, in carrying out your program, 400,000 men and women who love this grand sport of ours are strongly behind this drive for better fishing.

Cooperating in this manner, we look forward with high hopes to even greater advances during the coming year.

  
Commissioner of Fisheries





Wetzel 5-35

# PET TROUT FLIES

By CHAS. M. WETZEL

(Illustrated by Author)

PICKING out a collection of trout flies that rank high on Pennsylvania waters is quite a task; and it is with a rather dubious feeling that I have compiled the dressings for the following list. In my opinion, this group with its various colors, is a fairly representative one and should catch trout—that is, if they are rising. The material used in the construction of the flies works equally well on either the common or the up-turned body artificials—those imitating the mayflies. I might add that the latter flies are not an innovation, yet through faulty tying in the past they have been relegated to a position where they do not rightfully belong. With the descriptions given here, those of you who have followed my past articles on fly tying, should have no difficulty in constructing any of them. Some of the flies are creations of fancy; some in a general way are copies of insects—patterns so well known that one feels like changing them; one or two are close imitations of flies, copied long ago by a far more skilled angler than I; while still others are my own interpretations of aquatic insects, which I have caught over and on the water, both in Pennsylvania and on various northern streams.

## No. 1. The Royal Coachman (Fanwing)

This is one of my favorite flies and has probably accounted for more trout than any of the following. It is probably no better than the others, yet the confidence I have in its efficacy has never been shaken. It is a fancy fly, but it's great on trout, especially browns.

Body, peacock herl, with a red floss silk band in center and red tip; hackle, brown; tail, a few fibres from a golden pheasant feather; wings, the curled and mottled breast feathers from a mallard duck.

## No. 2. The Pale Evening Dun

From conversations with various anglers, I believe this fly to be an imitation of the small mayfly *Cleon vicina*. It is smaller than the pale watery duns and has clear colorless wings, whereas the wings of the pale wateries are clouded.

Body, pale yellowish white floss silk, ribbed with fine gold wire; hackle, dun color; tail, grey fibre; wings, starling or light gray duck wing feathers.

## No. 3. The Governor

A fancy fly that does well on most trout streams. Probably it was originally intended as an imitation of a caddis fly.

Body, peacock herl with red silk floss tip; hackle, brown; tail, none; wings, the brown and black mottled tail feather of a turkey.

## No. 4. The Pale Watery Dun

Most of the pale whitish yellow mayflies are called either pale evening duns or pale watery duns. Many claim that the original artificial included both the pale evening and

the pale wateries in its makeup; but I believe the pale evening dun to be *Cleon vicina*, a much smaller fly than the pale watery duns *Baetis bioculata* and *Centroptilum zuteolum*. Both of the latter flies have been identified and classified in America, and they are the identical insects that Halford (probably the world's greatest fly fisherman) imitated so successfully in England. I can do no better than to give his description of this artificial.

Body, stripped condor, dyed a shade of sulphury white; hackle, dyed Naples yellow; tail, Gallina, dyed Naples yellow; wings, pale starling; head, three close turns of horsehair, dyed pale dead leaf color.

Condor quill is rather difficult to obtain, but may be procured from H. Noll, Apsley and Zeralda Sts, Philadelphia, Pennsylvania. It is obtained by stripping the flue from the fibres of a condor wing feather, but peacock quill from the eye of the tail feather should work equally as well. The advantage of condor quill lies in its greater strength; disadvantage—harder to remove the flue, while stripping. My own and alternate design I will now give.

Body, pale yellow floss silk ribbed with gold wire or tinsel; hackle, dyed yellowish brown; tail, fibres from a wood duck feather; wings, starling or light grey duck wing feathers.

## No. 5. The Pale Watery Spinner

This fly is intended to represent the imago stage of the pale watery duns. It is tied with the wings in an outstretched horizontal position, either with the hackle points, or one side of the hackle clipped off along the quill as I described somewhere before. The latter method is undoubtedly the best way, although some fly tyers don't like it, having an aversion to using scissors on any part of a fly.

Among the mayflies, copulation usually occurs in the air. The male darts from below and seizes his mate, attaching himself with his claspers, or forceps to her hinder body segments, meanwhile embracing her thorax with his elongated fore tarsi or feet. Unable to support herself and mate, the couple sink to the ground, and by the time this is reached, intercourse is usually completed. The male being prone to polygamy flies off in search of another mate, while the female shortly repairs to the water to lay her eggs. While ovipositing, she can be seen rising and falling over the water, dipping down and touching the surface with the end segments of her body. This action washes off the eggs that are being extruded from her paired oviducts. Some of the mayflies have two egg sacs which they drop in a mass; others creep beneath the water and deposit them; while still others fall prone upon the surface, with wings outstretched and deposit their eggs that way. The latter is the position that the artificial spinner imitates,—i.e. while ovipositing or immediately afterwards, when its life cycle is completed.

Body, yellowish ochre floss silk ribbed with gold wire or tinsel; hackle, same as dun; tail, same as dun; wings, two pair of dun hackles set on horizontally.

## No. 6. The Midge

This is patterned after the midge fly (genus *Chironomus*, order *Diptera*) that appears in such vast swarms around Lake Wallenpaupack. The midges are among the most ubiquitous of aquatic insects and are found on practically all of our streams.

Body, buff or light olive floss silk, tied rather slim and ribbed with fine gold wire; hackle, dun color; tail, none; wings, pale starling or light grey duck wing feathers.

## No. 7. The Blue Winged Olive Dun

This fly is an imitation of the mayfly *Ephemerella bispina* and is very similar to the English blue winged olive *Ephemerella ignata*. Dr. Needham, who first classified *E. bispina*, is my authority for the above statement and at great trouble I have also secured Rev. Eaton's (The English entomologist's) description of *E. Ignata*.

Body, olive floss silk, ribbed with yellow silk thread; hackle, brown; tail, grey fibres; wings, coot wing feathers.

## No. 8. The Sherry Spinner

This fly is intended to represent the imago stage of *Ephemerella bispina*, the blue winged olive dun.

Body, quill, either condor or peacock hackle, ginger; tail, ginger hackle fibres; wings, two pair of pale ginger hackles set on horizontally.

## No. 9. The Brown Bi-Visible

Although it resembles no insect, this is a peach of a fly. No more need be said.

Body, brown hackle, palmer tied full length, with two turns of white hackle wound on at the head; tail, brown hackle fibres—quite bushy.

## No. 10. The Blue Bottle

The prototype of this fly is quite well known and recognized by everyone. It belongs to the *Diptera* and is known as *Lucilia sylvarum*.

Body, steel blue silk or chenille, ribbed with black silk thread; hackle, black or dark grey; tail, none; wings, coot wing feathers.

## No. 11. The Alder

This is an imitation of the smoky alder fly, known as *Sialis infumata*, order *Neuroptera*.

Body, a blend of wool, black and brown with black the ground color—or as an alternate—peacock herl; hackle, black; tail, none; wings, black mottled with rust color, or dark mottled turkey tail feathers.

## No. 12. The Cowdung

An old favorite, imitating the cowdung fly, genus *Scatophaga*, order *Diptera*.

Body, olive color floss silk; hackle, brown; tail, none; wings, grey duck wing feathers.

(Turn to Page 17)



# DEER JERRY

## A Letter erbout sucker fishin' from Ramapo Jones

Fer: Mister Ramapo Jones,  
Stony P'int, Noo Yowrk

Dere Ramapo:

Jest t'other day, me'n thet wuthless editur what I teached everything he knows erbout fishin' ter, got tergether, an' he shore wuz upshot ter think thet now mebbe since Fred Everett started in ter do this here paintin' an all on a whoppin' big scale he hed mebbe fergot erbout thet book the editur gits out. But I sez ter him, sez I, yuh hain't got no reezon fer ter figger ennything o' the kind. Reckon thet Fred mebbe might hev some story er other stickin' round, an I'm awritin' ter Ramapo ter git the lowdown. He shore wuz upshot tew erbout not mebbe gittin' sum more o' Fred's paintin's fer the front o' his books ez the boys around the Corners store what gets it hez been powerful spoiled now thet them covers hez been so grate.

I tole him thet the boys wuz mebbe spoiled like thet Pat burd dog o' his'n. Jest so soon's I menshuned her, he britened up ter beat the band. Helped him ter train thet pup, an' I figger we dun a rite pert job, ef I do say. This here letter is jest ter keep in tuch with ye, Ramapo. We both hev our hands full with these here boys we teached all thay know erbout fishin', dogs er huntin' ter.

Yer frend,  
Jerry.

P. S. We're goin' ter hev sum fust rate troutin' this yere, an' Mandy sez ez how I'm ter ask ye down.

P. S. secund—The suckers is bitin' good.

Penna. Angler,  
Fish Commishun,  
Harrisburg, Pa.

Deer Editur, Yore friend Jerry has rit me erbout my friend Everett, who mayhap isn't, an' so I'm sendin' yuh my answer tuh send to Jerry since I don't no his address. Yuh better read it cause it's cummin' tuh yuh ennyhow soon's Jerry reads ut. Why don't yuh print Jerry's letter tuh me as a interdukshin tuh mine tuh him an' so make a artical fer yore book. I hopes yore she-Pat has pups an' my friend Everett gits the best one which he don't deserve nohow cause I rites bettern him an' should orta git it which I will iffen your my friend like I be

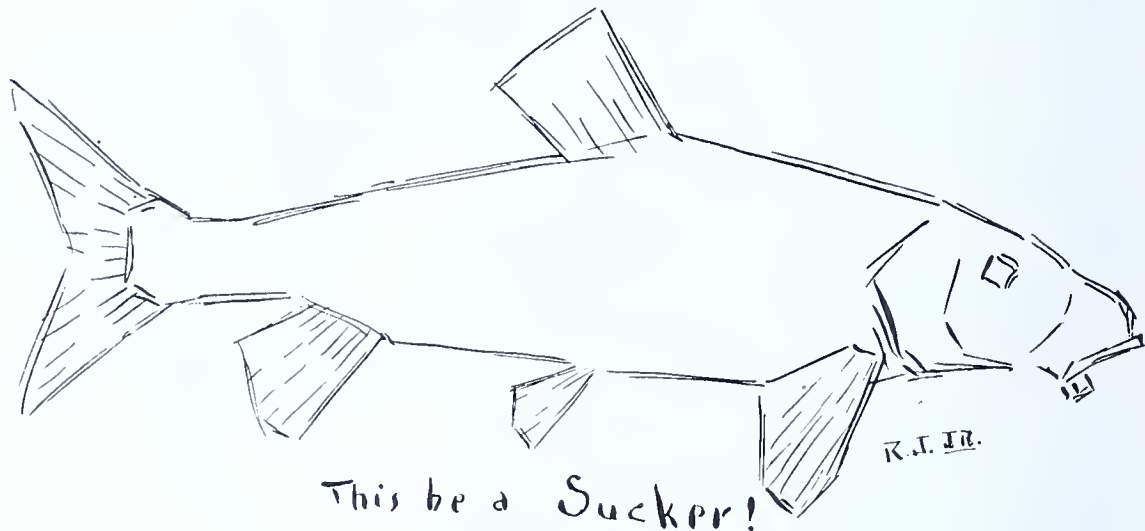
Yore friend and new riter  
Ramapo Jones

Deer Jerry, I'm gosh awful glad yuh rit me as yuh done cause yore letter got me riled up more'n more as I thinks on it 'till now I'm rite down mad agin an' when I'm made like I onct rote yore Deer Editur, I can rite reel good 'til I gits the mad offen my chest. I'm not so sartin jist what I'm so mad erbout but mayhap it's that friend o' mine what you rote me on and thet thar Deer Editur o' yorn. Peers tuh me thet them thar fellers ort tuh tend tuh thar own bizness without beatin' round Robin Hood's corn crib an' git en usuns mixed

in ut, like ut looks they be doin'. Frum whut yore letter sez yore Deer Editur kaint git my friend Everett tu rite fer 'im nohow count o' his bein' so allfired bizy an' ever'thin' like I no he be 'cause he aint bin down tuh the P'int tu the store whar we reeds yore Deer Editur's magazines ahin' the stove like I writ him oncet.

As I hain't seed Fred an' ka'nt tell 'im tuh rite sumpthin' fer Deer Editur like he wants as yuh hints in yore letter, I thunk mayhap I culd rite yuh an' yuh culd give 'im my letter tuh print an' I'll git Jr. tuh make sum pichers tuh go with ut so's folks kin see whut I be talkin' erbout in case they kaint read like some folks kaint like yuh an' me kin. This be to

an' back tuh my mad on them thar laws, like I sed fore I begun tuh Ha-Ha yuh like I done an' forgot my mad, which now I'm madder than afore 'cause I wasted time a tellin' yuh why I'm mad. I reckon I best go back tuh a few weeks last spring when I was down on the Yellow Panties, er somethin' like thet whut you calls that thar stream. Ennyhow I wuz thar with Charlie Fox an' he tol' me whar he thinks the trout be an' thar we found sucker fisherfolks an' rite off jist like thet I gits mad an' sez tuh Charlie I sez "Gol ding it" (Only I sed it in my own words which I kaint rite) sez I "be'nt that a gosh dinged shame tuh let them fellers fish with worms like thet rite in yore best trout water" an' he



bad like I alus sez 'cause ignorance be sumpthin' fierce tuh have as yuh nos better'n whut I do 'cause yuh've got more of ut than I hev, Ha! Ha! Speakin' a ignornce makes me rit down maddern whut I bin bein', 'cause now I nos whut it be in yore letter whut makes me mad like I tol' yuh I wuz ('but didn't no why perzackly which now I do) an' let me tell yuh strate frum the sholder whutut be.

New parygraf and let's go 'cause I'm so all fired het up I'm way head o' my riten in my thots alreddy, gol dern it ennyhow. Fust off yuh up an' sez yore trout fishin', which I no more erbout than most ennybody, is goin' tuh be good en then yuh ups an' sez suckers be bitin' good which be whut makes me so allfired mad like I rite. Now don't get all riled up 'til I gits this offen my chest 'cause it beunt yuh I'm so mad erbout but them there laws on trout an' suckers and sich, 'cause trout fishin' be my favrit tho I nos sucker fishin' be grate sport an' most folks likes ut 'cause it comes when thare beunt no tother kind a fishin'. They be good eaten then, to, as I allus sez like I've tol yuh so many times, an' besides they be all yuh kin catch Ha! Ha! agin. That's why I hain't cum down tuh fish trout with yuh 'cause I hates tuh spend all my time feelin' sourful like fer yuh when I'm pullin' in all those thar big uns an' yore ketchin' mayhap sum little thing what's to yung tuh no better, Ha! Ha! or I hev to stop fishin' tuh show yuh how which you cain't understand no how even when I show yuh. 4 Ha-Has.

New parygraf tuh git 'way frum the Ha-Ha's

sez, sez he "They be fishin' fer suckers." "Suckers," sez I disgusted like an' put all my disgust into the way I sez ut, "What do yuh mean, suckers? Hain't this a trout stream?" An' he lugs at me fer a minit an' sez "Shore, this be a trout stream but the suckers be'unt so perticular but what they kin stand 'em an' use the same waters 'cause our suckers be rite sociable fish like all us Pa. Dutch and fisherites an' so-on-ites".

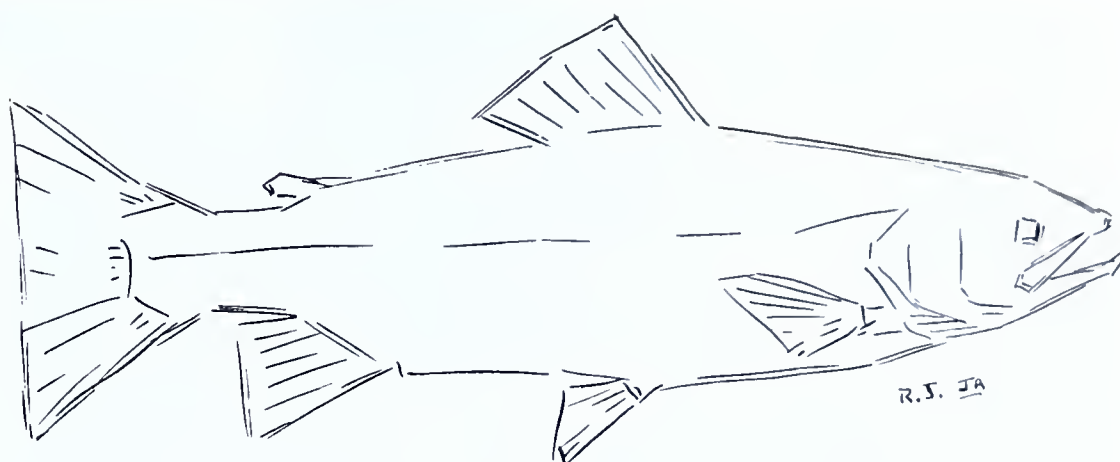
He chukles like he thinked he'd sed sumpthin' which only goes tuh show how ignorant a feller kin be an' not no ut, like I allus sez, so I cums rite back at 'im an' sez as sarkastik as I kin, which be sum sarkastik if'n I does say so myself as shouldn't, me beun modest like I be. I sez "I be'unt tryin' tuh belittle yore ol' sucker" sez I, "cause I got a lot o' respek fer 'em an' likes 'em rite good in thar place which beunt in a trout stream iffen yore goin' to fish fer 'em. Seems tuh me I done herd onct thet trout sort a have a hankerin' fer worms same as yore suckers hev an' so whut? Mayhap yuh got yore trout eddicated down here an' they wuz larned the law an' seasons an' sich things afore they wuz let out o' school an' so they won't bite no worms durin' the sucker season afore the trout season or maphap they kin read an' yuh puts tags on yore worms which sez "Fer suckers only" er sumpthin' like thet". Wal, Charlie, he lugs at me fer a while an sez "Yuh got sumpthin' thar, Ramapo". An' I sez, "Yuh bet yore bottom dollar I hev," sez I, "An' iffen I wuz yuh folks hereabouts I'd get together an' do sumpthin' erbout it. Ut don't



seem rite tuh me tuh 'low yore trout tuh be laid open tuh temptashun all during these months. "Of course", I sez "your sucker fisher-folks will keep yankin' the bait away from the trout fast's they kin an' pray none gits caught nor would they keep them iffen they duz, but think of all the wasted worms and efforts and sore mouths and sich, which ut ain't nohow rite should be, an' the turruble strain on some fisher-folks consence. Ut's sartin' (Ha-Ha) thet no one would sort of fergit tuh put back a nice big trout, not when the suckers air so much delichuser, but yuh kain't tell mayhap onct in awhile one be color blind er has week eyes or sumpthin' an' a trout might accidental like git mixed up with the suckers".

Time fer a new parygraf. "Jest think" I sez "How turrible them thar folks will feel effen a warden has tu tell 'em whut has happened an' asts 'em not tuh do it agin". Gosh, I wuz goin' strong an' don't give Charlie much time tuh say nothin' nohow which it seems he nain't got to say enyway 'cause I kin see he thinks like I do an' so we stands thar an' talks erbout how ut be wrong to 'low sucker fishin' in trout streams whar we feels plum shore lots o' trout gits caught an' loses thar way afore they gits back in the water an' wakes up an' finds themselves in sumuns fryin' pan.

New Parygraf to give a chancet tuh think it over and I hopes others do to 'cause I thinks ut's a serious thing tuh those as likes thar trout fishin' tuh be good when the season opens an' not hev all the big uns caught out by the sucker fisherfolks. Not that all such folks would keep the trout, but it ain't right thet they be caught nohow, 'specially when most trout fisherfolks kain't ketch trout like I do an' if the trout git eddicated then most



This be a Trout!

folks ain't goin' tuh ketch the trout. Ut's awful, I tells yuh Deer Jerry, an' sumpthin' orter be did erbout ut afore ut's too late like I sez.

New parygraf to git control o' my nerves which be all upshot on account of trout fishin' in Pa. goin' to the suckers ifen sumpthin' ain't did soon to stop sucker fishin' in trout waters. Gosh all hemlock thar be heaps o' water fer sucker fishin' without doin' ut in trout streams an' sides we needs suckers in the trout streams to hev young uns and feed our trout like they do. So yuh better git hold o' that Deer Editor an' open his eyes tuh the grate danger, like I sez.

New parygraf to end this letter so yuh kin git ut to Deer Editor soon. I'm powerful glad yuh rote me an' got me mad like I rote you did, an' got me tuh ritin' ut offen my chest like I hev did an' don't feel mad no more. Maw sez

to giv her love to Mandy an' iffen she kain't use it all yuh kin keep the rest yourself.

Yore Frend

Ramapo Jones

P. S. Ifen yuh thinks thar'll be any trout left cum fishin' time fer 'em I'll cum down fer a few days cause I no yuh'll need help til yuh git on how tuh ketch 'em. P. S. agin. Here air the pichers Junior made so give this letter tuh Deer Editor tu use fer his magazine so's the reeders'll no whut grate danger the trout air in an' mayhap they'll help Deer Editor put 'er over like I sed needs tuh be dun iffen they is to git eny more trout fishin'. A speshul P. S. fer Deer Editor. The shoats I bot last year wuz reel big this winter an' I got 6 (six) barrels o' pork out o' 'em.

Yore friend and new riter

Ramapo Jones

## HERE'S A LIST OF PET FLIES

Before giving you my list of early season flies, let me impress on you one truth about trout fishing—writes R. E. Angst, veteran Schuylkill County Angler. There are no secret flies or secret fishing methods that will always take fish. Each successful angler handles his flies in his own way. A successful fly for me may not be successful for you. Confidence is half of the battle. I know a man from Palmerton who uses a gray hackle and a brown hackle for all his fishing. He is confident that he can take fish with them and he proves that he can. The flies I name for you have successfully taken fish for me and others over a span of years. Use any of them with perfect confidence that they will take fish. It is your problem to find out which work best for you.

My own list goes like this: ginger quill, blue quill, gray hackle in all its body colors, especially salmon; red quill, March brown and cowdung. To this for rainbow trout should be added the royal coachman and Wickham's fancy. I carry these flies in sizes 10, 12 and 14 with size 12 predominating. Some of my pals would add the April gray, blue dun and the coachman. This last fly is the regular coachman with the black peacock body and white or slate wings. This fly was very successful for me up to last year. Last year I couldn't do a thing with it. Maybe the trout recognized it and were educated to it.

Mr. John Shapella, local professional fly tier and keen trout fisherman, has selected a list of six wet flies. I know John personally and he and I began fishing together. I know what he can do on a trout stream, therefore I give you these flies with great pleasure and with perfect confidence that they will take fish. Here they are: light and dark ginger quill, light and dark cahill, gray hackle orange and blue quill.

You will note that Mr. Shapella has selected the ginger quill as his No. 1 fly just as I did. He agrees with me on his other selections, but uses the cahill as a wet fly which I have never done. That is something for me to try this year.

Mr. Shapella wished to add two other flies to his list. I was saving them for a later article, but you may as well have them now. I rank them above all other wet flies for all season use. They are the "bread crust" and "bread crumb" flies and originated in Palmerton for use on the Aquashicola. They work well anywhere.

Now for streamers and bucktails. First, let me tell you that I do not like to fish them. I have many reasons for my dislike, and it isn't because they don't take fish. They take larger fish than any other method of trout fishing. One reason I don't like them is because they are hard to handle and destructive to a fine fly rod. It takes a bass fly rod to handle them successfully. Second, I miss too many strikes when I fish streamers, making me a nervous wreck before the day is done. If you

have a weak heart, don't fish streamers where big trout live.

In early season, with slightly colored or murky water, there is no artificial bait more killing than a bucktail or streamer handled by a man who knows how. Should bass be in the stream you are fishing them on, you will get plenty of action along about June, and a warden on the Paupack once told me to take that darn thing off and come back with it in July.

The list of successful streamers below given is a composite list selected by myself, Mr. Shapella and one of Pottsville's most successful anglers who fishes the Lackawaxen and has brought many record breakers home. He doesn't wish to have his name used, but among anglers he is outstanding. Here is the composite list: black ghost, Edson tiger and badger streamer: gray bucktail, yellow bucktail and brown bucktail. Get them in size 8 and you are ready to meet nearly all conditions. Fish them to imitate a swimming minnow, using a spinner in front of them or not as you prefer. I fish them downstream and quartering across, retrieving in jerks against the current, but I don't hook 50 per cent of my strikes. You may be able to discover a better way. One point, don't let your fly tier make them too long, or the tails too long over the back of the hook. The fish you miss are the ones that strike short and long tails often are the cause. That is why I often use a spinner in front. I hook more fish with it.



# MINNOW MAGIC

By N. R. CASILLO

WE first noticed the Scrubgrass back in the fall of '35 as we crossed it just outside of Clintonville on our way up into Forest County.

"That looks like a mighty good stream," remarked George Short my companion, as we sped across the bridge over it.

"Yeah, it does at that," I said, giving the winding stream a quick glance.

On our way back from Forest County we made it a point to stop at Clintonville for lunch and garner what information we could find on the Scrubgrass.

"The Scrubgrass is a mighty pretty creek," opined the counterman in the restaurant, "but just below here the gas wells empty their stuff into it. S'far as I know, the fishing is not good. But," he added, "the best part of the creek is east of the first bridge below the pump station. That's beyond here on the Kennerdell road."

On the way home we paused for a brief survey of the poorly recommended stream. At this point it is a good twenty-feet in width and the clear, blue-green water tumbles roughly over the rocks that constitute its bed.

"This creek will stand investigating," George recommended as we climbed the steep embankment back to the car.

"Okay, let's make it a date for April the sixteenth."

"You're on"

At daybreak on the sixteenth of April we backed the car into a short road near the bridge mentioned by our restaurant friend, and next to the neat home of the pump station operator. Before assembling our tackle we decided to view the stream from the vantage point of the bridge, so with that idea in mind we strode over to the structure.

"Good morning," some one greeted as we trudged up the steep approach.

"Good morning," we answered in surprise, for in the murky light we had not previously noticed the tall stranger. He was leaning against one of the steel girders, looking down into the water. Resting against the rail was a steel rod, rigged and ready for action.

"Any fish in the stream?" I ventured.

The stranger turned and looked at us approvingly before replying. "Yes, there are some mighty fine fish in the river," he finally answered, smiling broadly. Then, rather hesitantly he continued, "In fact I don't mind telling you I just lost a rainbow that I'd venture to say would scale a couple of pounds."

"Where?" George asked.

"Right there," the man indicated, pointing at an attractive pool just below the bridge.

"Tough luck," I sympathized.

"I was a little too eager," he explained, "and an old line that I was using snapped," he added as he picked up his rod and started for the nearby house. "Guess, I'll go in and have a bite to eat. Oh, excuse me—won't you men join me?"

Our puzzled glances, and hesitancy only caused him to repeat his invitation, so we accepted even though we had already eaten. "Yeah, a cup of hot coffee wouldn't go bad," remarked George with his usual ready wit.

So, over generous servings of ham and eggs and fragrant coffee in that pleasant kitchen, we became acquainted with Les Shope the caretaker of the pump station and fisherman extraordinary, and his charming wife and pretty daughter.

After breakfast Les returned with us to the car and remained while we assembled our outfits.

"You won't get anything with that," he observed, his mild, blue eyes twinkling good-naturedly behind his glasses as he watched George select a small bucktail from his case.

"No?"

"Anyway, not this time of the year," amended our friend. "Right now they're hungry for minnies."

"If I can't catch any on artificials," grumbled George, "then I'll do without."

"Shucks," said Les as he awkwardly kicked at a sod, "you'll want to take home a couple of good fish. Here, wait until I get some minnies for each of you." And he swung off toward the creek, returning a few minutes later with two condiment jars each containing three lively minnows.

The sun was poking its fiery disk over the sawtooth edge of the hemlocks when George started upstream from the bridge. It was still frosty, but the red rays of the belated sun promised a more comfortable temperature, for the heavy layer of hoarfrost disappeared as quickly as the sun hit it; a slowly narrowing strip of white covering an adjacent field marking the sun's progress.

A couple of ruffed grouse, back in the dense evergreen thickets on the hillsides sent their amorous spring songs thumping down the narrow valley. The greenish water of the stream, crystal clear and frigidly cold, purred promisingly under the bridge and then hummed off at a faster clip down the gentle slope.

"Well, I'll be seeing you at the Green Pool," yelled George as he swung into action; the Green Pool being the spot suggested by Les as a likely place for us to meet and eat our noonday lunches.

I waited until my companion was swallowed by the gloom of the hemlocks before I started fishing; deciding to take it slowly until he would be at least a good thirty-minutes ahead of me. George wasn't the starter because he wanted to be, but because he had lost the toss. Years before we had proved to our entire satisfaction the efficacy of the biblical expression, "those that come last, etc." However, there are some certain points to be considered about both positions.

He that goes first has the satisfaction of knowing that he is facing an unspoiled unexpectedness. He is the pioneer for the day or for the season, if it happens to be the opening day. The fish will be wholly (?) unsuspecting; possibly more avid for food, and (I add this with reservations), perhaps a little easier to entice.

He that follows can progress leisurely, take time for experimentation, and study the stream and its surroundings. Besides, there are those



Sketch by the Writer



that believe the fish are stirred up and therefore on the qui vive after an angler has passed by. In this respect I'm reminded of a pool below a cattle ford on Deer Creek, Lawrence County. Seldom does one fail to connect if he happens to be on deck a minute or two after the cattle have crossed it. In fact, whenever I fish the stream I make it a point to be at the pool for the evening fording.

Obviously there are things to be said in favor of both. However, the arguments are called off if the stream chances to be a heavily fished one. Signals need to be called over—and heeded.

A hundred or so yards above the bridge there is a fine pool; scarcely more than a dozen feet wide and at its head the water comes cascading down over rocks arranged so prettily as to suggest a rock garden. It is an exposed pool difficult of approach, for the only vegetation of any size about it consists of a couple of scrawny willows.

I crept as closely to it as seemed feasible, reconnoitered a few minutes and then dropped the nymph I had on into the water just above the miniature waterfall.

I wasn't hopeful of results, for I had seen George fish it without success on his way up. So I idly watched that bit of chenille and tinsel caught up by the swirling water and go plunging over the falls. For an instant it disappeared into the smother of foam, then like something alive it struggled to the surface. Caught again by the capricious current it was borne into a quiet eddy and slowly sank from sight.

As I absently began the retrieve I was rudely jerked to my senses by a vicious tug. Hooking itself, a fine rainbow arched from the water and knocked the drowsiness induced by a full stomach completely out of me.

The vigorous fish slashed through the water, took a couple of more jumps and then tore upstream into the white water at the foot of the falls. There the line went suddenly slack and I experienced that sensation of emptiness so well-known to brothers of the angle. But the slack line was caused by the fish being caught in the strong current and then swept back into the pool. Upon feeling that reassuring tension I gradually turned on the heat and eased him into the net; a fine eleven inch fish, as firm as a well-conditioned trout should be and cold as an icicle.

A stone's throw above the site of an ancient stone grist mill, the stream broadens and the water flows over a considerable expanse of grey shale. Every square inch of the bottom under the foot-deep water is visible, being absolutely devoid of cover. Nevertheless the overhanging bank on the north side of the creek produced a twelve-inch brown.

After creeling the brown I tied a small streamer fly to my leader and cast it slantingly upstream in the general direction of the opposite bank. After working the lure for several feet, I was about to lift it for another cast when something prompted me to continue the retrieve across the most exposed portion of that barren bottom. When halfway across I perceived a grey streak flash toward the lure and then tear for the shelter of the bank. A half a dozen more casts failed to entice the fish so I passed on.

Locations like the above should always be fished, providing the angler remains effectively hidden or can cast sufficiently far enough so as not to frighten the fish. Simply because you cannot see fish in such places is no indication



*Photos Courtesy Allentown Morning Call*

Posed over Trap No. 3 at the North End Rod and Gun club, Fullerton, are five shooters and a scorer who took part in the third annual field day of the Lehigh County Federation of Sportsmen's Clubs. Scorer Charles Freed, with pad in hand, is at the left. Shooters, from left to right, are: K. Rinker, Edward Dibra, James Horning, H. Kline and Bruce Muth.

The middle picture includes officials who had an active part in arranging the program for the affair. In the front row are Annabelle Klefer and Alma Kistler, who took charge of the distribution of badges. Forrest B. Klefer, George Zimmerman, C. Joel Young, Howard Heffner and Harry Paff are pictured on the first full line. Robert D. Dreisbach, Tilghman S. Cooper Jr. and George Guignet in the next row. F. Al. Brown, Walter D. Readinger, John Craig, Curtis Hendricks and Gordon Kling in the third. Earl Cope, Mark Wescoe, Milton O. Knauss, George Kline and Harry Arnold in the top row.

Lower photo: Ready for the raccoon trial are the dogs owned by John Struhar, Paul Struhar, Ernest Rutz with Buck who took three of the four possible heats, Mrs. Harry E. Arnold and Harry E. Arnold.

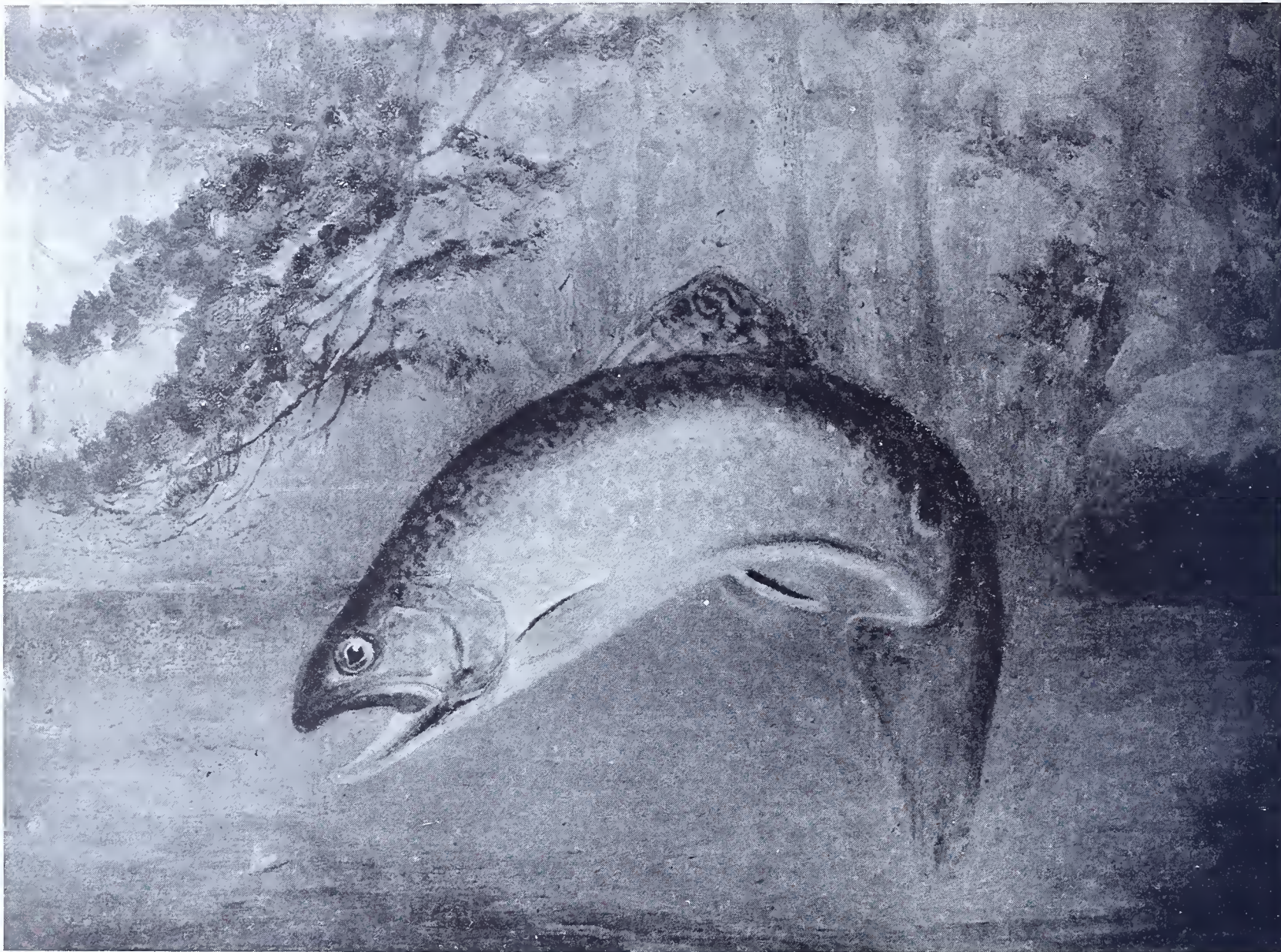
that they are not there. Usually the failure to get them is due to the facility with which they can spot the angler. Keep hidden to catch fish, is a good troutng slogan.

George and I arrived at the Green Pool at about the same time, his delay being due to

the fact that he had fished Bullion Run, a small tributary of the Scrubgrass containing a few native trout, catching only one legal fish, a fourteen-inch speckled.

The Green Pool surpasses anything that I  
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From a Painting by John Beck, Williamsport

## DEDICATED TO A CHARR

By ALEX P. SWEIGART

*"The trout that the children will know only by legend is the gold-sprinkled, living arrow of the white water; able to zig-zag up the cataract; able to loiter in the rapids; whose dainty meat is the glancing butterfly".*

—MYRON W. REED.

THE jagged outlines of a mass of driftwood and ancient logs fringing the eddy of Black pool were merging with the dusk of a May evening as Fontinalis, the charr, rose leisurely, time and again, to the succulent green drakes. It was carnival time for the trout in a great central Pennsylvania stream and it would last not longer than from one to two weeks. Shad fly time, local fishermen called it, this brief period of the year when vast hordes of the drakes cluttered vegetation along the shorelines. During a day when the hatch was at or near its peak, an angler could shake from a single branch of bush or tree, ten or more of the graceful flies.

In other sections of the stream, trout were also gorging themselves on this myriad insect life. Here and there, tiny dimples appeared on the water as giant brown trout rolled lazily to the surface, sucking the watertipping drakes into

their maws. Golden surges, much more swift and explosive, marked the feeding of the smaller browns. Twenty years before, shad fly time had been enjoyed solely by the kin of *Salvelinus Fontinalis*, the charr or brook trout. Today, rare indeed were the shimmering silver and red and mottled dark green flashes that indicated the surface feeding of the natives. Another race, a race of invaders, the brown trout of Europe, now was dominant.

Fontinalis was, in coloration, build, length and girth, typical of speckled trout in the era when the first white settlers pushed the frontiers of the American colonies past the mountain barriers of the Alleghenies. His coloration was so vivid that no artist's brush could do it justice. The marbling of deep green and black on dorsal fin and back merged in the sides to green and red spots on a dark undercolor. And those red markings! A quarter the size of

dimes, they faded to a delicate blue on the borders. Extending from the lower section of the gill cover to the anal fin was a vivid splash of crimson, while the undersurface of the belly was black. The pectoral fins, below and behind the gill covers, the ventral fins and anal fin were reddish orange, bordered by black and white at the bases. A vague hint of parr markings, dark blotches so prominent on the sides of young charr, remained. His head, while large with slightly elongated jaws, graced a deep broad frame given to speed and power. In length he exceeded 18 inches and in weight three pounds. For years, he had haunted the deep swirl beneath the mass of brush and logs leaving it only when the annual spawning urge impelled him and his kind to seek the head waters.

The persistent rises of Fontinalis on this particular evening brought forth a murmur o



joy from the Old Fisherman who had carefully approached the pool. Back in the days when he had driven horse and buggy to fish this stream, he had taken brook trout that would have equaled Fontinalis in size and beauty. But time had wrought its changes in his pet stream, time and the brown trout. When it came to brown trout, the Old Fisherman was a "die-hard". While he granted that the brownie was a fighting fish of no mean calibre, memories of other days with the species of Fontinalis had served to embitter him against the invaders. Now, here in the Black pool, was a brook trout the like of which he had, years ago, given up hope of catching.

The carefully fashioned drake, imitating with amazing effectiveness flies now on the water and over which he had worked many evenings during the past winter, fluttered lightly to the surface above the log jam. Like a tiny gossamer sailed ship, its wings erect and upward tilted abdomen balanced lightly, the artificial was carried by the current into the eddy. There followed an eager, surging rise and Fontinalis was fast. Carefully, one might almost say, reverently, the Old Fisherman played him, until that moment when all of his shimmering beauty quivered in the landing net. Time had turned back for an old man whose greatest joy was dreaming of other days, horse and buggy fishing days. He had caught once more a mature, heavy charr in the stream once famous for the size of its speckled trout.

The passing of Fontinalis from the Black pool marked the virtual close of an era when big charr were to be taken on this great stream fed by deepseated springs. Now let us turn back to a time, seven years before, when Fontinalis came into being.

Chill autumn nights and frosty mornings had cooled slightly the lower waters of the stream in which Fontinalis was to break from the egg in February. From a deep pool cut beneath an



Typical home water for the clan of Fontinalis.

overhanging bank, his sire, a 14-inch charr of vivid coloration, started the spawning migration in late October. His gorgeous mottling and spots seemed a fitting complement to the world of color on the shores of this wilderness stream. The brilliant red of the maples, the more sombre tints of the oak and hardwood leaves and the rich green of pine, spruce, hemlock and laurel were a setting for the swift waterway up which the sire of Fontinalis ascended.

As his mottled dorsal fin showed momentarily above the surface in the shallow riffle at the head of the home pool, another charr of 15-inch length, had almost attained the end of her spawning journey. Heavily laden with eggs, her progress through the surging rapids near the headwaters was, in comparison to that of her mate, sluggish. Finally, in a tiny fern and moss bordered pool deep in the gap, she paused at the site of the nest, a tiny bar of pebbles and glistening sand. There she was joined by the sire of Fontinalis after his seemingly tireless and flashing journey through brawling rapids and swift riffles to the headwaters. After the eggs had been deposited on the redd by the female and fertilized by the male, they were carefully covered with pebbles to a depth of several inches, and then, their mission completed, the adult charr dropped slowly downstream. Their downstream migration seemed, in contrast to the run that had terminated in the tiny pool at the headwaters, listless. To the pebble bar nest, in low temperature water subjected to a minimum of freezing, nature's incubator, the charr entrusted the welfare of eggs and offspring.

Then one day, early in February when snow covered the shoreline, Fontinalis emerged from the egg. During the hatching period, the current of the little stream had carried to the eggs in the nest an abundant supply of oxygen. Now a grotesque-appearing creature with an outlandish yolk sac attached to its under forepart found in the oxygen-laden water its life. For many days thereafter, the yolk sac nourished the tiny brook trout. By the time the yolk had been absorbed, the big-headed sliver of life was able to wriggle to the surface of the nest, and then try very short sallies into the current from the pebble bed. Each succeeding day found him gaining strength. For there, in the headwaters in early spring, minute organisms provided him with nourishment. The stream, even at its headwaters, furnished an abundance



Protective coloration was a dominant safeguard to the existence of Fontinalis.

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Winter feeding hole extending from the Saucon creek, Northampton county.

## STREAM IMPROVEMENT ON THE SAUCON CREEK

By E. A. HAEHNLE

**S**AUCON CREEK, which has its head waters in Lehigh County, one tributary near Coopersburg, and the other near Limeport, and runs through Lehigh and Northampton counties, is a typical Pennsylvania spring-fed limestone water creek. It meanders through some of the finest farming lands in our Commonwealth, through wooded vales, and finally past the great Bethlehem plant of Bethlehem Steel Company, where it joins the Lehigh River.

Saucon Creek has always been recognized as fine trout water. It has, however, like so many of our streams in Pennsylvania, suffered from modern civilization, not only to a slight extent from pollution near the confluence of the Lehigh River, but also is subject to rapid rise and fall because its watershed has been too severely deforested, with subsequent soil erosion. For these reasons, among others, it was an admirable stream to demonstrate the effectiveness of the stream improvement work sponsored by our Board of Fish Commissioners.

C. Joel Young, our local fish warden, was tireless in his efforts to coordinate the local sportsmen, W.P.A. authorities, and the City authorities so that a joint and comprehensive stream improvement program could be worked out on the Saucon. As usual, Joel, as he is familiarly known to his many friends, was successful. The stream had been subject to heavy stocking of brook and rainbow trout; the Board of Fish Commissioners stocking legal size fish, and Bethlehem Game, Fish and Forestry Association stocking fish which it had raised from fingerling to larger size fish in its Cooperative Nursery. While the stream is subject to exceptionally intensive fishing, being in the center of a heavily populated territory, the heavy stocking of fish did not seem to many of the interested sportsmen to bring the results its should. This raised the question of whether the stream was producing sufficient food for the large number of fish being placed in it each year. It was decided that a stream

improvement program was also desirable for this reason and should produce better results than had theretofore been the case.

In 1935, a stream improvement program was started on a portion of the Saucon that runs through the large City Park. Boulder retards, stone and cement deflectors, anchored trees and logs, and small waterjack dams were used. In some cases it was desirable to slow the action of the water; in others it was desirable to increase the rate of flow of the water, and in each case our Board of Fish Commissioners had a correctly designed method to produce the results desired, the effectiveness of each device having already been demonstrated at the model stream at Spring Creek. Most of the program was completed in time for the opening of the trout season in 1936. The sportsmen were

agreeably surprised to find what the work had accomplished, and all of them were enthusiastic in their praise of the manner in which the job was handled. The City authorities were so well pleased that they have sponsored, with the sportsmen and Board of Fish Commissioners, an extension of the program, which involves the destruction of an old stone bridge and an old stone dam which had theretofore caused approximately one-half mile of dead water. This has resulted in the addition of at least one-half mile of good trout water directly in the center of the City Park, and will, like the section of the stream covered by the first program, always be open to public fishing.

While the 1937 trout season was the first time that the stream improvements had been installed long enough to show their effectiveness in increasing the aquatic life of the stream, the 1936 season amply demonstrated that the improvements did provide good cover for the fish, with the result that there was a larger carry-over of trout from 1936 to 1937 than before the improvements were installed; so that the fisherman who spends his time along the Saucon in 1939 can look forward to better fishing than he has had before, all because of the stream improvement program, which was originally initiated by our Board of Fish Commissioners, and successfully carried through to completion under the guidance of our Fish Warden, D. Joel Young.

## SNAPPING TURTLE KILLS BIG PIKE

While C. A. Comer was attending the turtle traps, which the Board authorized me to use in Lake LaBoeuf, writes Warden W. E. Briggs, he noticed a large turtle near the mouth of the traps struggling with some object in the water. As he approached the trap, the turtle dragged the object directly into the mouth of the trap and was captured. This turtle weighed 20 pounds, and still held fast to the badly mutilated remains of a wall-eyed pike that would have easily weighed 6 or 7 pounds, and had been caught alive by this turtle.

The turtles in this lake have taken a heavy toll of all kinds of fish.



One of the stone dams and erosion walls placed on Saucon creek, Northampton county.





Type of stone deflector used in the Saucon creek, Northampton county.



Boulder retards placed in the S aucon Creek, Northampton county.

## JEFFERSON SPORTSMEN PAY TRIBUTE TO JORDAN

At the fall meeting of the Jefferson County Sportsmen's Association, the following resolution was unanimously adopted:

Whereas, death has removed one of our former Jefferson County Sportsmen, and later director of the National Wild Life Restoration Week of 1938—Mr. F. Frederick Jordan,

Therefore, we the Sportsmen's Association of Jefferson County, and all affiliated Sportsmen Clubs of Jefferson County, Pennsylvania,

Extend to the bereaved family our most sincere sympathy for their loss. And, that we record this resolution in the minute book of Jefferson County Sportsmen's Association. And, that we send a copy to the bereaved family. Also, that we have this resolution of respect sent in to PENNSYLVANIA GAME NEWS to have it published in memory of Mr. Jordan.

Adopted this 20th day of November, 1938.

Jefferson County Sportsmen's Association.

Amos Knarr, President

J. H. Barkley, Secretary

## WILL OPEN PRIVATE STREAM IN McKEAN

Members of the McKean County Sportsmen's club have announced they had been informed that Lewis Run-Timbuck branch of the Tuna creek, one of the county's finest trout streams, will be opened to fishermen next spring. The stream, formerly controlled by the old Lafayette Fish and Gun club, has been closed to anglers for more than 25 years.

The branch now is under the control of the Federal Forest service, and yesterday was stocked with 3,000 brook trout, ranging in length from five to seven inches. Another similar shipment of trout is expected from the Corry fish hatchery.

Mrs. Duff: "I always feel lots better after a good cry."

Mrs. Jawson: "So do I. It sort of gets things out of my system."

Mrs. Duff: "It doesn't get anything out of my system, but it does get things out of my husband."

## SUCKERS ARE MOODY

While suckers generally are not reckoned as cagey and selective when it comes to biting as are trout, James Alter, cashier of the bank at New Bloomfield, Perry county, and an ardent sucker fisherman, has first hand backing for the statement that you never can tell what any fish will do, from the lowly sucker to the lordly muskellunge.

One day early last spring, Jim, as he is popularly known, decided to try his favorite sucker fishing spot, at the point near Millers-town, Perry county, where the Cocolamus Creek has its juncture with the Juniata River. However, this particular place ranks as one of the favorites with sucker fisherman along the Juniata, and when he arrived at the fishin' pool, he found every available place taken.

In answer to the inquiry about catches, the universal answer was "not bitin'". Nary a fish had been taken on this off-day. Finally, one of the less persistent followers of our patron saint, Izaak Walton, decided to call it a day, and Jim stepped into his place.

Whether the suckers had a change of mood or took a definite fancy to the style and color of the worms being used as bait remains a matter of conjecture. The fact remains that, within half an hour, Angler Alter had taken two suckers, and writes Warden Charlie Long, each of them tipped the scales at over three pounds. Not another fish, he reports, was taken at the place that day.

## FAVORS EDUCATION IN ARTIFICIAL FISHING

Writes Royden J. Taylor, ardent Indiana, (Pa.) angler and conservationist:

I had an experience on the Allegheny which seemed to me unusual. Using a fly and spinner, I hooked a bass which was ten inches or more. I wasn't keeping any fish and when I got him in the net found he had hooked himself in the tongue. This seemed a hopeless proposition as I could not get the hook out without tearing the tongue. I dropped the fish in the water while I thought it over and after a wiggle or two he freed himself without any heavy tug on the line. I don't know how he did it but he was free without injury when I could not get the hook out. I wonder if more fish would not free themselves in this manner if let swim for awhile.

Some day we must come to artificial lures for all game fish and why couldn't we start in the high schools with an educational campaign? I think some other states, or cities in other states are already doing that. My guess is the students are more eager to learn about fishing and proper equipment than most people realize. At some of our local meetings where we have had tackle on exhibit and discussed proper methods of fishing, young boys have come to me afterward and asked questions until midnight. If we started with the schools, we could build up a generation of anglers who would use only artificial lures.

A friend, he continues, fishing the Allegheny near Corydon late in October, hooked two rainbow trout on large bass flies used with spinners. One was a little over 11 inches and the other 13 inches in length. This seems to indicate these fish like a much larger fly of the streamer type than we have been using for them. I saw a 10-inch rainbow taken in July up there on one of these big bass flies.





I sure hed a dandy sucker fish back erly last munth an' Joe Carns who wuz afishin' with me sez ez how he ain't never hed better fishin' in December. Our crick hed been rite low up til thet deep snow we hed on Thanks-givin'. We wuz ketchin' sum nice pike but in thet low cleer water, the suckers jest wuden't take hold nohow. Then along cums this snow an' when she melted thet crick jumped ter bete the band. Now, I alweez figger thet atter the crick's been low fer a spell an' then gits a good flushin' out frum hevy rain er snow is the best time ter try fer suckers. Ef you kin hit it jest when its raisin', an' hev sum gude red worms, them worms thet hev a little red vein thru 'em, you kin rite often ketch a swad o' suckers.

Pickin' the rite place ter fish at this time o' yere menes a lot. Ef you kin find a nice hole whare a run cums inter the crick it's a good bet ter give it a try. When the water's raisin', it's a good idear ter fish in the eddy back in the run, ez the suckers seme ter move in thare ter git away frum the fast water. I alweez use a fair size piece o'lead at the end o' the line an' fasten 2 hooks 1 abuv t'other an' the lowest erbout 15 inches abuv the sinker. Fix these hooks ter the line with short pieces o' line an' erbout the same space apart. I like leetle kirby hooks erbout the size o' a number 7 trout hook.

Cumin back ter our sucker fish, Joe an' me got ter the crick jest ez she wuz raisin', an' we both throwed in whare the water wuz backin' inter the run. I allus like ter fish with Joe, fer he's a squair an' fair feller ef there ever wuz. We musta throwed plumb inter the middle o' a school o' suckers runnin' frum erbout 12 ter 16 inches long. Them poles wuz hardly set afore Joe gits a good strong bite, an' then my line starts aworkin'. In not more'n a hour, Joe hed ketched him 5 dandies frum 12 to 15 inches, an' I hed four erbout the same size. Them wuz all the fish we needed, so we called it a day.

## "FISHING!" AN APPRECIATION

I, for one, am proud to call myself a fisher and with the fishermen stand. Ours is a venerable and a noble and a healthful sport. To practice it is good for our minds and our bodies. To lie about our fishing afterwards, makes the imagination more flexible.

--IRVIN S. COBB.



*Question: Does the fish department issue a biennial report, and if so, where can I get one? —R.H.P.*

*Answer: Yes, a report of this nature is now being printed. It may be secured from the Division of Documents, 10th and Market Streets, Harrisburg, at a charge of twenty-five cents (\$25), cash, check or money order.*

*Question: Where can I get a book or pamphlet on how to improve conditions of a trout stream? —W.A.L.*

*Answer: "Method for the Improvement of Michigan Trout Streams", a bulletin prepared for the Michigan Department of Conservation by the Institute for Fisheries Research, University of Michigan at Ann Arbor, Michigan, is one of the finest treatises on trout stream improvement that has come to our attention. It was prepared jointly by Carl L. Hubbs, John R. Greeley and Clarence M. Tarzwell of the Institute Staff. While the character of Michigan trout streams, with their low banks, is somewhat different from our generally high banked Pennsylvania streams, many of the devices illustrated and explained in this bulletin should prove highly practical for improvement work in this state.*



*Question: For bass fishing with the fly rod would you recommend a tapered line? —F. H.*

*Answer: Definitely no. And although a good heavy level line, sizes B to D, is practical for casting such wind-resisting lures as the hair frog and brings out the action of the stiffer rods usually used in bass fishing, the new torpedo-lines seem to be fast stealing the show. Two of our Pennsylvania aces with the flyrod for bass, Bob McCafferty of Palmyra and Myron Shoemaker of Laceyville, are emphatic in their praise for the torpedo-heads.*

*Question: Have used the Royal Coachman for trout and it ranks as my favorite fly, both dry and wet. How good is it when fished behind a spinner for bass? —J.W.*

*Answer: The Royal Coachman, fished behind a size 1/0 or 2/0 Colorado spinner for bass ranks as one of the good fly rod lures for the fighting smallmouth. We like size 4 of this pattern, but there are plenty of fishermen who use size 2 and prefer this larger size.*



Two ardent Williams Grove, Cumberland county, anglers, Andy Lobell, left, and Marty Myers, right with their catch of bass from Conewago Creek.





George Fenner, Jr., of Wilkes-Barre used the "Angler" as a background for this fine five pound largemouth bass taken in an ice pond near Wilkes-Barre.

## CLINTON SPORTSMEN PLAN STREAM SURVEY

Adopting a constitution and by-laws, in which the name of the Southern Clinton County Forest, Fish and Game Association formally became the designation of the organized sportsmen of this end of the county, approximately 100 members met Oct. 28 in the Greenburr Band Hall. Discussion of present and future activities provided an interesting evening for all present.

The association favored the establishment of several small game refuges in Southern Clinton County and will make requisition for rabbits from the Pennsylvania Game Commission for early re-stocking next Spring.

A major project sponsored by the association will be a careful survey of all small streams in this end of the county looking toward stream improvement and re-stocking purposes, with particular reference to Fishing Creek.

Chauncey F. Royer, president of the association who presided at the meeting, will appoint a membership committee whose goal will be 400. The charter membership now stands at 270 and will be held open until January 1. The annual membership fee is 50 cents.

Some interesting activities for the future were discussed, including fox hunts and shooting matches during the winter, the feeding of

game, importation of deer from Michigan, establishing a turkey farm, and plans for a banquet.

The constitution and by-laws, as read by Secretary Paul P. Cooper, provide that the election of officers shall be at the first regular meeting of the fiscal year in the first week in October. No office shall be filled by the same person for more than two successive terms. Any officer upon conviction of violating any game or fish law shall automatically relinquish his office.

Sugar Valley will be the nucleus of the association with the following districts:

No. 1—From Logan Mills road west and all Sugar Valley territory therein.

No. 2—From Stover Road west to Logan Mills road.

No. 3—From cross road at Brumgard Church west to Stover Road.

No. 4—From cross road at Brumgard Church east and all Sugar Valley territory therein.

No. 5—North of Loganton Borough, including all Rosecrans mountain territory.

Other districts may be added from time to time providing they are within reasonable limits of Southern Clinton County.

Other members of the committee that prepared the constitution and by-laws were Fred Yarison, Don Orner, Ray Harbach, R. P. Foresman, and Harold Douty.

## GIRL, 12, WINS CONTEST PRIZE

Selected from among nearly two dozen entries in the Press-Murphy Store big fish contest, Miss Eileen Jakuboski, 12 year old Railroad Avenue girl, Johnsonburg, Elk county, was the winner of the summer fishing award made for the largest fish caught between June 1st and June 30th.

Several of the entries were above the 15 inch mark and indicated a better than average

season for the streams surrounding the Paper City.

The youngster's catch was a  $3\frac{3}{4}$  pound rainbow trout which measured  $18\frac{1}{2}$  inches taken from the East Branch of the Clarion river a short distance from her home on Railroad Avenue, the morning of June 23rd.

Even many of the most expert male fishermen in town have been unable to come anywhere near this mark during the 1938 season to date.

The cup, a slim silver trophy mounted on an ebony base, was on display during the period of the contest in the Murphy store window.

## BIG BASS CAUGHT IN SWEET ARROW

Sweet Arrow Lake, popular fishing water in Schuylkill county, produced some outstanding catches of bass and pickerel during the 1938 season, reports Warden Anthony Lech of Cressona. Following were some of the best catches.

Ralph Holwig of Pine Grove, RFD No. 2, landed 11 largemouth bass during the season, ranging in length from 11 to 22 inches, the largest fish weighing  $4\frac{1}{2}$  pounds. Dr. William Wynn of Pine Grove had a season catch of 14 bass in the lake. These fish ranged in size from 11 to 20 inches, the largest, a smallmouth, tipping the scales at  $4\frac{1}{2}$  pounds. Chet Hinkel of Schuylkill Haven caught a 22 inch largemouth bass weighing  $5\frac{1}{2}$  pounds.

A  $19\frac{1}{2}$  inch largemouth weighing 3 pounds was caught by Michael Adamich of St. Clair. Charles Angst landed a 21 inch largemouth weighing 5 pounds. Ten bass taken during the season by Floyd Tobias of Pine Grove ranged in length from 11 to 22 inches. The 22 inch bass in this catch had a girth of  $14\frac{1}{2}$  inches and weighed  $5\frac{3}{4}$  pounds. It was a largemouth.

Pheon Heinback of Pine Grove caught a 21 inch largemouth bass weighing  $4\frac{3}{4}$  pounds. Identically the same as to weight and length was the largemouth taken by Charles Heize of Orwigsburg. Clair Houtz of Orwin caught 10 pickerel in the lake during the season, the smallest 13 inches and the largest 22 inches in length.



Mrs. E. C. Davis, Erie, an ardent anglerette and member of the Presque Sportsmen's League, displays an 11 pound muskie she caught in Edinboro Lake on plug.



## ED. CUMINGS LAUDS WATERSNAKE CONTROL

I was intensely interested in your articles in past issues of the PENNSYLVANIA ANGLER on the subject of watersnake control, wrote Ed. Cumings of Flint, Michigan. So far as I know, you have launched the first constructive method of getting rid of these predators for while other sporting magazines have mentioned the subject editorially I have never seen in any of them as complete a coverage of this serious menace as you have accomplished. Perhaps I can add a little information which may be of help. I have been operating a Trout Feeding Station at my summer home in Northern Michigan for quite a good many years. While snapping turtles and kingfishers take a certain toll of our small fish the watersnake is the very worst enemy we have. It is almost unbelievable the number of small fry that an ordinary size watersnake can dispose of in just a few minutes. Last summer we were transferring some 1¼" to 1¾" fry from one of our ponds and while we were placing the fish in another pond a short distance away we were not absent from the first pond more than six minutes and on our return we saw a 27 inch watersnake in the midst of a school of fry rapidly diving from side to side and swallowing our little fish with almost unbelievable rapidity. I shot the snake and on opening its stomach, took out thirty-six of our fingerlings, four or five of which were still alive and in the lower end of its stomach was a 5 inch trout which he had evidently captured in crossing the stream to get to our fish pond. We have waged relentless warfare on these snakes for four or five years and have succeeded in cutting down their number to a very few so that now we do not consider them very much of a menace. We obtained considerable success by the use of a cylindrical wire gauze trap with a funnel at each end similar to the common mouse or rat trap, but by far the best weapon we have used is a double barrel .410 shot gun pistol with a 6 inch barrel using the very finest shot obtainable. The attendant has this pistol constantly and in spite of the fact that these snakes move like lightning he rarely misses one.

I certainly wish to congratulate you on this very forward step and sincerely hope that your campaign will be copied by many other conservation bodies.



James Raley of Hyndman with his record fallfish for 1938. It measured 19 inches, had a girth of 11 inches and weighed 3 pounds. The catch was made in Wills Creek, Bedford county.

## JUDGE CORSON HEADS MONTGOMERY CLUB

Judge George C. Corson succeeded Judge Harold G. Knight as president of the Montgomery County Fish, Game and Forestry Association at its annual meeting at Norristown.

Judge Knight, who had served nine years as head of the sportsmen's group, had succeeded former Judge J. Ambler Williams.

Other officers elected included J. Hansell French, H. H. Ganser, Ernest A. Heebner and Charles C. Hughes, vice presidents; Eugene Muller, secretary, and Harold Curll, treasurer.



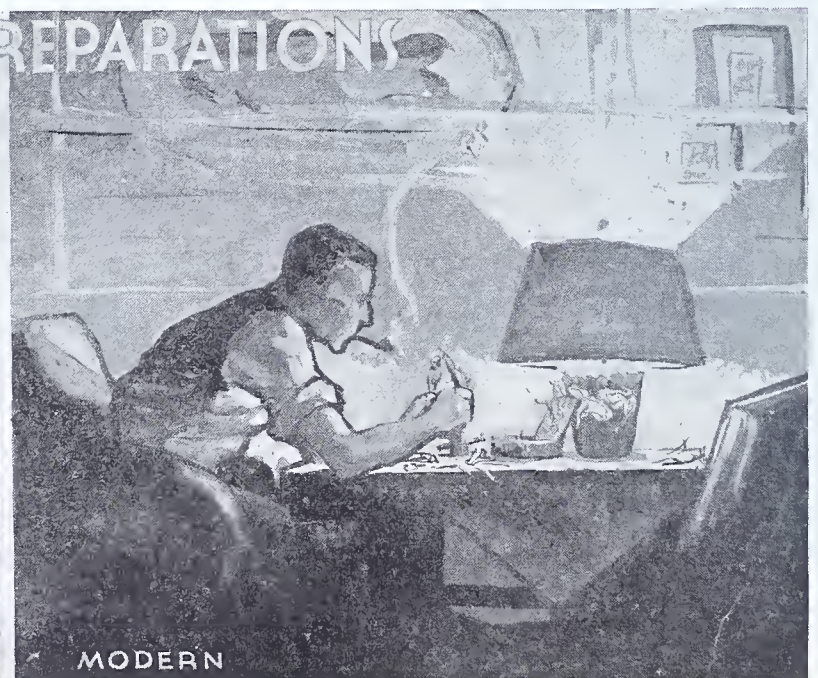
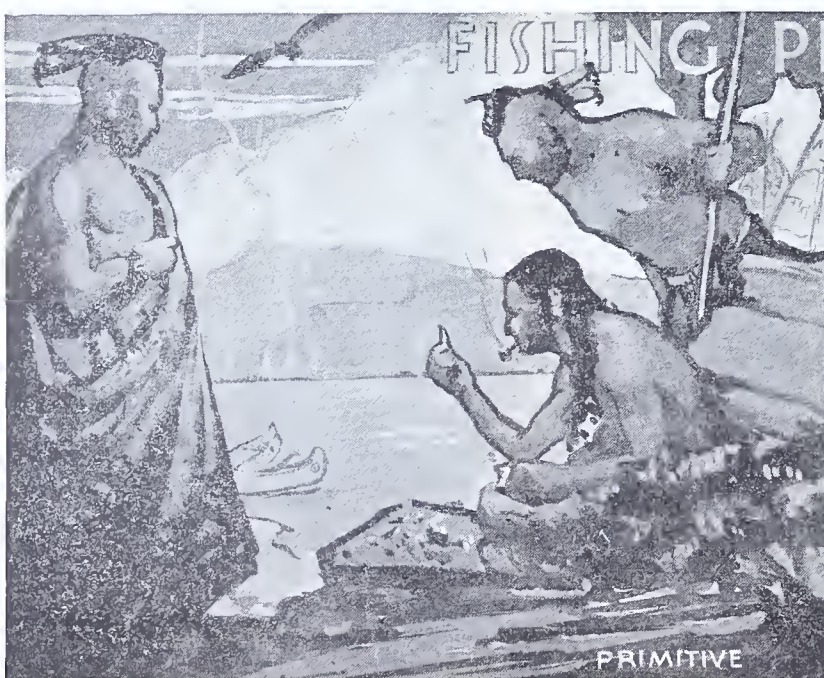
Harry Kirk of Harrisburg with his runner-up 5 pounds 4 ounces smallmouth bass for 1938. Taken in Susquehanna at Goldsboro.

Clerk: "These are satin bloomers."

Girl: "Well, I want some that have never been used before."

Medium: "Ah, I hear the spirit of your late wife knocking."

Bereaved Husband: "Who's she knocking now?"





## THOUSANDS ATTEND LAWRENCE MEET

Several thousand persons attended the field trials staged by the Sportsman's Council of Lawrence County, at the Fair Grounds on Saturday, October 8. Many sportsmen from neighboring counties were in attendance, also officials from Fish and Game Commissions.

Among those present were Charles French, Commissioner of Fisheries, Judd Turner, Assistant Director, Game Commission, Hayes T. Englert, Division Supervisor, Game Commission, Troy Burns and Duane Ward, President, Pittsburgh Casting Club, George Trigg, Secretary, Youngstown Sportsman's Club, and Andy Kawana, Western Reserve bait and fly caster.

During the day, special honor was paid to Jared M. B. Reis, former member of the Game Commission and to Hon. O. H. P. Green, Dean of Lawrence County Sportsmen. Without doubt these two venerable gentlemen have accomplished wonders for the sportsmen.

### Event Winners—Bird Dog Derby

First, Princess Josephine, owned by Clint White, New Wilmington.

Second, Wolf Creek Rube, owned by Jack Hoffman, Grove City.

Third, Lady Gay, owned by F. R. McCauley, Sharon.

### Bird Dog, All Age

First, Stokey's Betsy, owned by Robert Mackey, New Castle.

Second, North Liberty Bob, Owned by Mr. George, Grove City.

Third, Larue Boy, owned by Jack Larue.

### 13-Inch Beagles

First, De Leonardo's Fannie, owned by G. Leonardo, Ellwood City.

Second, Rocky Hill Jack, owned by H. K. Hetrick, Kittanning.

Third, Rocky Hill Nell, owned by H. K. Hetrick, Kittanning.

### 15-Inch Beagles

First, Mayfield King, owned by Ted Shutte, Beaver Falls.

Second, Tutsy, owned by H. L. Brinton, New Castle.

Third, Haig's Fleet Foot, owned by R. A. McConahy, Sharon.

### Coon Dog

Final tree and final line was won by Red Jacket, owned by Shellinger and Wells, Youngstown, Ohio.

### Spaniel Derby

First, Edward's Borgon, owned by Edward Borgon, Utica.

Second, Jerry, owned by Mr. McCormick, New Castle.

Third, Royal Duce, owned by Neil Borgon, Utica.

### Spaniel All Age

First, Cottontail Tillie, owned by Neil Borgon, Utica.

Second, Reydale Flush, owned by Dr. Homer Allen, New Castle.

Third, Duke, owned by Kenneth Cotton, New Castle.

### Casting Events— $\frac{3}{8}$ Accuracy

First, George Hall, Struthers, Ohio.

Second, C. W. Ward, Pittsburgh, Pennsylvania.

Third, Carl Breitenbach, Millvale, Pennsylvania.

### $\frac{5}{8}$ Accuracy

First, George Hall, Struthers, Ohio.

Second, Val Breitenbach, Millvale, Pennsylvania.

Third, Carl Breitenbach, Millvale, Pennsylvania.

### Wet Fly Accuracy

First, Ray Lawrence, Youngstown, Ohio.

Second, Val Breitenbach, Millvale, Pennsylvania.

Third, Andy Kawana, Sharon, Pennsylvania.

### Local Fishermen Only— $\frac{5}{8}$ Plug Accuracy

First, Jack Adderty, Sharon, Pennsylvania.

Second, Russell Craig, New Wilmington, Pennsylvania.

Third, Russell Wilson, New Wilmington, Pennsylvania.

Fourth, L. M. Mitcheltree, Pulaski, Pennsylvania.

### Trap Shoot—Lewis Class

First, Carnahan, 25-25.

Second, Moore, 24-25.

Second, Pitts, 24-25.

Third, Atkinson, 23-25.

Third, Hopkinson, 23-25.

The Sportsman's Council of Lawrence County is composed of all individual clubs in the county which include: Lawrence County Sportsman's Club, New Castle; Ellwood City Rod and Gun Club; East New Castle Rod and Gun Club; Bessemer Rod and Gun Club; West Pittsburgh Sportsman's Association; Shenango Valley Sportsman's Association; and Lawrence County Coon Hunters' Association.

The executive committee for the day consisted of Harold Parker, President, Odd H. McCleary, Secretary, Frank H. Coen, Game Protector and C. B. White, Fish Warden.

## WEST CHESTER CLUB HEARS OF STOCKING

A meeting of the West Chester Fish and Game Association was held in the Municipal Building, West Chester, December 16th.

The Secretary read the minutes of the previous meeting, and the Treasurer submitted his report.

President Ross announced the death of two members (Dr. J. Oscar Dicks and Samuel Entrikin) since the last meeting, and asked the members to stand for a minute's silence in tribute to those two well known local sportsmen.

Alfred Penrose, Chairman of the Game Restocking Committee, gave a report of the game released this year, which included 50 cock and 10 hen pheasants, 62 quail (22 of which were raised from chicks by the Club and 125 rabbits. Mr. Penrose also mentioned the bird feeders which members of the Club have out, and stressed the importance of feeding the game during the winter.

The President reported that in addition to the 1,200 legal sized brook and 800 brown trout released early in the Spring, 2,800 fingerling brook trout had been placed in feeder streams in the County. Also that 2,500 small mouth bass (from 2 to 6 inches), 900 catfish, 900 break, 600 tadpoles and 50,000 perch fry had been placed in the Brandywine, and that today (Dec. 16) a shipment of minnows had arrived for the Brandywine.

The Secretary read a letter from C. A. French, Commissioner of Fisheries, addressed to all Associations, outlining changes in the size limit of bass and daily number of bait-fish and fish-bait to be allowed fishermen in 1939.

The evening having especially been set aside for children, door prizes of reels, lines, etc., were awarded the following youngsters: Melvin Nelms, Eugene Walton, 2nd, Buddy Ross, Richard Carey, Jr. and Jack Fitzgerald.

The speaker of the evening was Miss Violet Findlay, Supervisor of Nature Studies, Wilmington Schools, who gave a very interesting talk on bird life, following which she showed a reel of motion pictures of birds in their native haunts.

Irving Hoffman, Secretary of the Coatesville Y.M.C.A. presented movies taken by him in the Southwest during the summer.

Music was furnished by the Blue Ridge Trail Blazers.



One of the nicest braces of smallmouth bass ever to be taken from Perkiomen Creek, 21½ and 18 inches in length, caught by James Smith, Spring Mount.

L304021



## COLUMBIA SPORTSMEN HEAR STOCKING REPORTS

A total of 24,000 black bass, three inches long; 7500 cat fish and suckers, eight to fourteen inches long; 10,000 Susquehanna salmon, one inch long; a truck load of 60 cans of tadpoles for feed; one truck, 60 cans yellow perch; 24 cans blue gill sunfish and 24 cans of minnows, were planted in the Susquehanna river from Columbia to Safe Harbor during the month of November. A report on the planting by chairman Walter Baumgardner, of the fish committee, featured the November meeting of the Columbia Fish and Game Association in the American Legion home. William B. Spence, recently installed as president, was in charge of the session. The fish were received through the fish commission.

Reports on the liberation of 82 rabbits from Gethsemane through Manor and West Hempfield townships also were made at the session. The rabbits purchased by the association, were liberated by a committee in charge of Lloyd Longsdorf.

Dog tattooing, discussed for the past several months by the association, was adopted finally when an order was placed for a tattooing instrument. When the instrument arrives a plan of identification and registering will have to be drawn. If the plan proves satisfactory locally

the association will endeavor to have the Lancaster County Federated Sportsmen as well as the Pennsylvania State Federation adopt the method of marking dogs against the possibility of being stolen.

Jere Culp, chairman of the quail and pheasant raising project, reported that pheasants confined to the coops in Purple's Lane during the small game season would be liberated.

Culp reported that the bird raising program has taken on such proportions that he is unable to handle the work himself. President Spence appointed himself, John Downs, William McDevitt, Clair Morrison, Walter Baumgard-

ner and Lyle Simmons on a committee to assist Culp.

Prizes offered in past years for the largest fish caught and piece of game bagged were discontinued last night. Instead a first and second award will be offered for members of the association recruiting the first and second largest number of new members.

Following the session officers called attention to the possibility of a sudden thaw on the river which might cause boats, tied along shore to be taken down stream. They urged that local sportsmen and rivermen take their boats from the stream as early as possible in order to avoid losing them.

## LANCASTER SPORTSMEN SEINE AND RESTOCK FISH

This is another fish story.

But it's not the yarn about the one that got away.

Instead, it's about the many that were caught and transplanted elsewhere.

It's the story of the draining of the Long Park lake and the transplanting of the fish there to streams in Lancaster county.

With the permission of the Long Park Commission, the Lancaster County Fish and Game Association, Inc., co-operating with the State Fish Commission, transplanted all the rainbow trout, yellow perch and catfish that were swimming in the lake. The goldfish, of which there were many, were given to those who asked for them and about 50 people were in line.

The draining of the lake started in October and on October 24 members of the association, working under the direction of Horace Pyle, Fish Warden, went to work with the nets. The

fish were hauled out and placed in special State trucks sent to Lancaster from the hatcheries for their journey to Lancaster county streams.

The trout were planted in the Little Conestoga; the yellow perch were put into the Susquehanna above the Holtwood and Safe Harbor dams; the catfish went to the Conestoga and Mill creeks.

This was the first time that the lake had been drained in four years, but members of the association hope to make it an annual fall project. When the lake is refilled, they plan to stock it with only bass and each fall the fingerlings will be taken out and planted in county streams.

About 25 members of the association helped in the work with Daniel Raley, president; William Kopp, secretary; Victor Alexander, treasurer and Harry M. Reed, entertainment chairman, in charge.



Photo by F. W. Fisher  
Dean C. Smith, Byrd antarctic pilot in 1928, exhibits a 15 inch rainbow trout taken last season in Kettle Creek.



F. W. Fisher snapped his photo of Dean Smith, Maplewood, N. J., fishing in Kettle Creek, Clinton county.



## PET TROUT FLIES

(Continued from Page 3)

### No. 13. The Green Drake

This fly is patterned after the large mayfly *Hexagenia zimbata*. The browner colored drake *H. bilineata* is a close relative to this fly but is not always found on the same stream. The nymphs of *Hexagenia*, have a pair of mandibles which places them among the carnivores, but the majority of mayflies are herbivores, feeding on diatoms, aquatic plants and decaying vegetation. The drake nymphs are of the burrowing type and appear to be found only on some of the larger streams and waters. I will give the dressing for this fly with the up-turned body, as I have described the fan wing type before.

Body, raffia grass, ribbed with brown silk thread; hackle, brown; tail, fibres from a wood duck feather; wings, goose wing feathers, dyed pale greenish yellow.

### No. 14. The Professor (Fanwing)

This fly is one of the best of the fanwings. Probably, the red tail arouses the trout's fury and goads it into striking.

Body, yellow floss silk or wool, ribbed with gold tinsel or wire; hackle, brown; tail, a few fibres dyed bright red; wings, curled mottled mallard feathers,—off the breast.

### No. 15. The Black Gnat

Strange as it seems, this fly appears to be one of the best for night fishing. Twenty-one years ago this spring "Rube" Kelly, (probably the best fisherman on Kettle Creek) and I were fishing the Hammersley. In the inky darkness and fishing with a black gnat, "Rube" scored a big catch of brook trout, while I secured plenty of experience in night fishing. I have never seen Rube since that night. Every time I fish the Kettle, I call at his house and invariably I meet with the same response: "He's out fishin'".

### No. 16. The Fore and Aft Fly

This is a fly that has sprung into prominence within the past few years. Like bivisible, it is another good floater.

Body, orange floss silk, ribbed with black silk thread; hackle, grey or grizzly from a Plymouth Rock rooster; tail, wood duck feather fibres.

### No. 17. The Spider

This fly was probably an attempt to imitate the crane flies—those long legged insects that hover over the water. It is made in a number of patterns, like the fore and aft flies, but the one I like best is given below.

Body, bright yellow floss silk, ribbed with black silk thread; hackle, badger (black center with a creamy edge) with very long fibres.

### No. 18. The March Brown

An old English fly fisherman, artist and entomologist, by the name of Ronalds called the prototype of this fly *Baetis zonguicauda*. Later Halford called it *Ecydurus venosus*. I will call it *Siphonurus alternatus*, for I believe this particular mayfly was originally named the March Brown in this country. Ronalds

evidently classified the fly incorrectly—or the name was later changed—and to the average fisherman, the difference between *Ecydurus venosus* and *Siphonurus alternatus*, would not be apparent. Both would probably be called the March Brown. Only someone trained in entomology and accustomed to the venation of wings, would perhaps know the difference. In insect taxonomic work, the wings are very important, and those of the mayflies with their numerous veins, cross veins and intercalaries are among the most difficult to read correctly. I know whereof I speak for I have spent many an hour laboring over them. But getting back to the March Brown. This drake fly is considerably smaller than *Hexagenia*, and through the ages seems to have been the dividing line in size that distinguishes the duns from the drakes.

Body, chocolate brown floss silk, ribbed with yellow silk thread; hackle, brown; tail, brown turkey tail fibres; wings, brown mottled partridge or turkey feather.

### No. 19. The Great Red Spinner

This fly is intended to represent the imago stage of the March Browns.

Body, a blend of orange and brown silk,—ground color brown-ribbed with gold tinsel; hackle, brown; tail, brown turkey tail fibres; wings, two pair of light cockybonddhu hackles (brown tipped with a black center) set on horizontally.

### No. 20. Dod's Pet

This is my version on interpretation of a caddis fly (genus *Limnephilus* order *Trichoptera*) whose larva builds its house out of small stones and sand. It is quite commonly found around Beavertown and on most Pennsylvania streams, especially in the shallower headwaters. Since I am probably the first who ever attempted to imitate this fly, I am taking the liberty of christening it, "Dod's Pet."

Body, a blend of dyed orange and brown herl from an ostrich feather; hackle, brown; tail, none; wings, mottled turkey wing feathers.

### No. 21. The Ginger Quill

All the quill flies are good and this one in particular.

It is a favorite with many including, I believe, the editor of the ANGLER. It is probably taken to represent collectively and in a group the pale watery and the light olive duns.

Body, peacock quill at the eye of a tail feather, or quill stripped from the wing feather of a condor; hackle, ginger; tail, ginger; hackle, fibres; wings, light slate duck wing feathers.

### No. 22. The Ginger Quill (Fanwing)

This fly differs from the ginger quill only in that the wings are of a slaty speckled blue, taken from the wing bow of an unknown duck. The curled feathers on the wing bow are superior to the breast feathers for fanwings, as they are shorter and heavier in the quill. Try this fly sometime.

### No. 23. The Yellow May Dun

An imitation of the mayfly, known among entomologists as *Heptagenia flavescens*. We have all seen these yellow flies flying over the water. *Heptagenia interpunctata* is somewhat similar. I dare not change the dressing of this old artificial.

Body, yellow silk floss body, ribbed with gold wire or tinsel; hackle, yellow; tail, yellow hackle fibres; wings, duck feather wings, dyed yellow.

### No. 24. The Yellow Sally

This is an imitation of the green stone fly, genus *Chloroperla*, order *Plecoptera*. Its color is probably due to infiltration of chlorophyll. I have never had much success with either this fly or the Yellow May, but many anglers swear by both.

Body, light green floss silk ribbed with brown silk thread; hackle, dyed greenish yellow; tail, yellowish brown fibres; wings, green—from a parrot.

### No. 25. The Cahill

This is an old favorite with many anglers.

Body, rabbit's fur or mouse colored mohair; hackle, brown; tail, mottled wood duck fibres; wings, grey mottled wood duck fibres cut from a feather.

And now the list is complete. I have not included any of the gaudy flies like the Paramachene Belle, Red Ibis, Silver Doctor and others, for outside of Canadian waters, I have never caught any trout on them. It is my hope that I have not neglected any of your old favorites, but if this has proved the case, I will blame it on lack of space. There are so many flies—new ones are constantly cropping up—that it would fill a small volume to even give the dressings. That is our main trouble. We have too many flies. Everyone who ties his own artificials has probably been guilty in adding to the number, including myself. If we could pare down the list—say to fifty—making an honest effort to study and imitate the fly on the water—our stream days would be more pleasantly spent and the joys of angling would be increased an hundred fold.

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## MINNOW MAGIC

(Continued from Page 7)

have ever seen in the way of sylvan beauty. It is a large irregular basin whose emerald water is so vivid as to border on beryl, and gurgles around a wide bend and finally slips under a great overhanging boulder at the tail-end of the pool. Great hemlocks tower above the water and admit enough light to intensify the rich coloring of the emerald depths.

The scene coupled with the cool dankness of the spring air mingling with the distilled fragrance of the evergreens and the refreshing odor of growing things suffused the senses with indelible impressions.

After lunch and a pipe or two we fished the pool, thoroughly covering it from advantageous positions. But our array of artificials, including both flies and lures failed to elicit any attention from its denizens.

"Let's give them a rest and then try again," my companion suggested; a procedure which we repeated twice again but with no better results.

"The minnows!" I exclaimed, recalling the half-dozen that Les had given us.

"Minnows be hanged," cried George. Then he paused and added: "Huh, I'll wager they're as dead as herrings."

In a moment I had them out; dead to be sure but still usable. With the aid of a four-inch needle which I carry for the purpose, I drew the snell of a hook through the vent and then out of the mouth of one of the largest minnows and tied the snell to my leader. I might digress at this point and explain that the needle has a slot filed into its eye so that the loop on the snell may be inserted in the eye.

From the corner of my eye I saw George watching the entire performance, but I said nothing. Finally he blurted, "Here, let me have that needle."

The current at the pool's head caught my minnow and swirled it to the edge of the overhanging rock. My companion's bait followed an identical course just behind mine. When about thirty-feet of line had been paid out I set the click and waited.

"What the duce!" yelled George. "It can't be a fish? By golly it is and wow!" he roared as he caught a glimpse of it.

While my eyes were riveted on my companion's flashing line, there was a tug on my own and you can well imagine that those sylvan silences were shattered. In a couple of minutes a brace of twelve-inch browns reposed on a mossy rock while I frantically waited upon George to finish threading another minnow.

In exactly thirty minutes those dead minnows netted us six brown trout ranging from ten to fifteen inches; an array of fish to be proud of, and when arranged beside those we had already creeled they comprised a catch over which to gloat.

Did we have any success with artificials? Not at all even though we waited for the evening fishing. Have we ever done any good with artificials? So far we haven't. Furthermore, since then the pool has never failed to crash through whenever we want a good fish or two, providing we use minnows.

Some day at the Green Pool we will take those fish by surprise and make a killing with artificials, but until that day arrives we can always rely on minnow magic to pull a fish or two from out of the hat.

## FINDS TURTLES HARD ON DUCKS

I was surprised to read an article in the *ANGLER* about the snapping turtles varying their diet to ducks for I was under the impression that every one knew that. If a person is acquainted with a farmer who has a small stream on his place and keeps ducks and this person likes to turtle hunt, the farmer can soon tell him when to try his luck, if he is unable to discover turtle signs himself, writes J. J. Johnen, of McDonald.

My father is on a farm in Beaver county which has a small stream the length of it and each year so many turtles seem to reach his stream which is a branch of Kings Creek. The run is good for at least 8 turtles each year and the distance up from Kings Creek would be about two miles. But getting back to the farmer and his ducks. Dad keeps his young ducks penned up until they are a few weeks old and when let out, of course, they soon find their way to the creek. Well, as soon as June gets going good, then the ducks start coming in with crippled legs or feet and there is only one answer and that is that the turtles are up the creek. Of course, there are no 29 pounders or the ducks wouldn't come back. When a crippled duck comes at dusk then the first good hot day will produce the turtle



Rapid Run, one of the mountain streams in the Union county district.

if the creek is followed as far as the ducks go down stream if the turtle hunters are not familiar enough with the habits of the turtles as to know where to look for them any other time than noon on a hot day. These turtles that just crippled a duck are not large enough to hold a duck and when caught they seldom were much larger than a saucer. I was out there one evening and Dad told me that his ducks numbered one less when they came in for their supper just before I had arrived so I went into the barn and got a pitch fork and started down the creek and it was not long until I found the missing duck lying on the edge of the run (at a very narrow place) with his head off. After that discovery it was not long until I discovered the turtle with the aid of the fork. This one, of course, was a little larger, about the size of a plate. I don't know what it weighed as I have never weighed one; likely about 3 pounds. Caught one some years ago that had 18 eggs in it if I remember correctly.

Speaking of turtles, when I was a youngster I was told that if you shot through the shell of a turtle when you saw it out on the top of the water that it would float. Some 15 years ago while fishing this little run I mentioned above I had a 22 rifle along to shoot snakes

as this run had plenty of them in it. I was fishing a small hole and let the rifle lie on the ground beside me. My line started to move in an unnatural like and on bringing up the line I was surprised that it was a turtle that was pushing the line up toward me and when I saw me he wasn't long starting back down but I did manage to get a shot. I took off my shoes and socks and after some time had been fishing for the turtle I managed to get hold of it for it was in a part of the stream that the ducks navigated and was a good thing to have out of the creek. When I got it out of the water I found that I had shot it through the center of the back and as I had waited a few minutes before trying to get it, (thinking that it was coming up as I had been told), I thought that didn't hold good in that case anyway. A few days after that while shooting snakes along the stream I shot a turtle trying to place a shot in the neck just where it enters the shell. This one never came up either so two or three days later I went back down the creek after it and when I got it I found that the shot had gone through one eye and part of the jaw. It was not dead by any means.

I am not a turtle hunter of the type that goes into the water up to their waist looking for them for I like to kind of search where I am reaching into. I don't know what a turtle would do if you filled him full of bullets. If he didn't come up you might be able to find him through the discoloration of the water as he would no doubt bleed some.

## TWO CHANGES IN FISH CODE

Two important changes in the Fish Code for the 1939 fishing season in Pennsylvania have been announced by Commissioner of Fisheries C. A. French. These changes were made by the Board of Fish Commissioners under authority granted the Board by the last session of the Legislature to regulate seasons, creel and size limits on fish taken in the inland waters.

Widespread approval on the part of anglers is anticipated through the Board's action in reducing the legal size limit on smallmouth and largemouth bass from 10 inches minimum to 9 inches minimum. It was found during the one season period in which the 10 inch limit prevailed, that many bass just short of legal size were injured seriously and considerable loss in these popular species occurred.

In line with the Commission's drive to conserve food for fish in state streams, the Board moved to reduce the limit on fish bait including freshwater mussels, water worms, helgramites and crayfish, and bait fish, minnows, stone catfish and killifishes. Next year a fisherman may have in his possession at any one time 35 bait fish or 35 fish bait, instead of 50 permitted in each classification this year. He will be permitted, however, to have 50 of the combined species of bait fish and fish bait on any one day. This reduction in limits on bait fish and fish bait has been made necessary owing to greatly increased stocking of bass, dependent upon this type of forage coincident with a vast increase in number of fishermen during the past two years.

No other changes in the Fish Code were announced. The 1939 trout season will open on April 15.



## DEDICATED TO A CHARR

(Continued from Page 9)

of food. Gradually, as spring merged into summer and summer advanced, Fontinalis, in company with others of the hatch, made his way farther downstream. He was now in the so-called fingerling stage, and, at a point about one-half mile below the place of his birth, he found a dark swirling pool, virtually hemmed in by overhanging laurel. A shelving rock was ideal protection from his enemies. One of the most adept of these was an old raccoon that ambled to the stream every once in a while on a fishing expedition and was extremely swift in scooping trout from the water with his forepaws.

His coloration at this time was exceedingly dark, blending with the shadowy pool. Perhaps in no other species of fishes, with the possible exception of the smallmouth bass, is protective coloration more pronounced than in our eastern brook trout. In a tiny open glade, another fingerling of the same hatch had taken up its home. Over the white sand and pebbles of the bottom, this charr was extremely light in coloration. Tending to increase the brilliancy of markings in these brook trout was an abundance of rich organic food. Perhaps, too, some mineral content of the water was partially responsible. In Fontinalis, at this stage, the parr markings, dark vertical blotches, seven in number and extending down over the sides, were strikingly noticeable.

Life was an alluring adventure for young Fontinalis. Near the headwaters, food seemed ridiculously easy to secure. Curiosity was characteristic of the baby charr. Frequently, as he was lying head pointed upstream, a life habit of his kind, for from above the pool came food carried by the swirling current, some floating object would cause him to dart toward the surface. It might be a twig or any other particle of litter that served to attract his attention. Even during the later years of his life, he sometimes was impelled by this curiosity, rising to and hovering poised near the surface to look over an odd-appearing man-made lure that floated past.

In the second year of his life, Fontinalis dropped still farther downstream. He was then an eight-inch trout, the girth and graceful lines of his build at this early stage holding promise that here was an unusual fish in the making. That summer, a squat, slate colored water-snake succeeded in cornering and seizing one of the trout in the pool beneath a shelving rock. Thereafter, Fontinalis lived in abject terror of this crafty enemy to his kind that slithered so noiselessly into the stream.

When he had attained a length of 13 inches, Fontinalis chose as his retreat the eddy beneath the log drift. Now his diet, in response to greater body needs, was more varied. Horned dace or run chubs and silver shiners fell prey to his swift forays from the shadows of the drift. Crayfish, abundant in this cold water, he caught on many nights and seldom seemed to tire of them. In his feeding on other species of fish life, he had stern competition. Two invaders larger than Fontinalis, brown trout, each over 20 inches in length, voraciously preyed on the minnow schools, often wallowing virtually to the shoreline in pursuit of the forage fish. Here again was greater body need demonstrated and the brown trout thrived in this stream



Edward Dooley, 12, with his 14-inch smallmouth from the Neshaminy.

harboring so much forage. They drew no line between young trout of their own species, young brook trout and minnows, and as they achieved greater size, did much of their feeding during the night. For that matter, Fontinalis did not hesitate on occasion to revert to cannibalism.

In his third year, he joined a female brook trout of heavier girth on the spawning bed. One of the constantly diminishing number of brook trout still to be found in the stream, she also made her home in the Black pool. In the spring of the fifth year of life for Fontinalis, an artificial fly lured her to the strike and an angler's creel. During the last years of his life as the big charr put on length and girth, he was the lone brook trout in the pool at the log jam.

So completely had the brown trout taken over this stream, that it was now regarded as futile to stock brook trout in it. Henceforth, it was classified as brown trout water and stocked accordingly. Not that it failed at any time to produce splendid trouting, however, for the fighting browns provided anglers with rare sport during the summer of the passing of the big charr. Little wonder then, that like a glimmer of color from the past was Fontinalis' last rise to fly that evening in May when the Old Fisherman scored.

It may be said, in truth, that no finer game fish ever haunted North American waters.

## PRELUDE TO THE SECOND ROUND

I WAS out along my favorite stream  
On a day not long gone by  
Out for a tramp in the open  
Under the winter sky.  
Strange indeed were familiar scenes  
That greeted my eager eyes  
But stranger still was this happening  
That filled me with such surprise.

I skirted the border of ice locked pools  
For maybe a mile or so  
And breasted the laurel thickets  
Laden with clinging snow  
Until I came to the place I sought,  
A high-banked, deepened pool,  
Where only last season an overgrown trout  
Had made of me a fool;  
I wanted to visit again the place  
Where I met my Waterloo  
And plan for the next encounter  
What I should and shouldn't do.

Not all of this pool was covered with ice:  
The lower part was free,  
And, of course, I couldn't resist the urge  
To see what I could see,  
So I climbed the high bank carefully  
And peered down over the edge  
And there was that same trout sunning himself  
On a sunken rocky ledge.

Now I hadn't expected to see him at all  
But imagine my surprise  
When he stayed right there and glared at me  
With challenge in his eyes;  
This is the part that makes me blush,  
And makes me feel so queer,  
HE WASN'T ONE BIT AFRAID OF ME  
SINCE THE TILT WE HAD LAST  
YEAR;  
He seemed to hold me in disrepute  
An opponent to disdain  
That he could best any time at all  
The battle was joined again.

I stayed there a while and watched him  
And He in turn watched me,  
Then I came away and left him  
Supreme in his victory.  
But wait until next season comes  
You'll find me streamward bound  
Ready and willing and anxious  
To fight the second round.

ROBERT F. KEAGLE.

A fisherman who believes and practices conservation in following his sport is George H. Ely of New Hope. Following is his report of the season catch and kill: Caught about a dozen trout, all brooks under 8 inches. Killed none. They were caught in Cook's Creek, Bucks county and Beaverdam in Wayne county. Caught eight bass, killed one smallmouth, 13 inches, and two largemouths 14 inches. Killed one pickerel 15 inches. Caught a dozen or so bluegill sunfish, killed four, all over 6 inches. Did all my fishing with the flyrod and artificial lures.





## HERE <sup>AND</sup> THERE 'N ANGLERDOM



One of the proudest anglers who took a fish out of Wildwood Lake during the past season was 8-year old Charles Anderson of Harrisburg. Using corn as bait, he hooked and landed a 19½ inch carp weighing 3 pounds.

Ranking with the finest smallmouth bass taken during the 1938 fishing season was the 21½ inch fish taken from the Susquehanna River at Middletown by Francis Ulrich of Middletown. Francis, better known as "Sunny", according to Warden Frank Sanda of Steelton, landed the bass, weighing 4 pounds 9 ounces while casting plug near Hill Island in the river.

Another big smallmouth from the Susquehanna near Middletown was the bass taken by Frank Bryan of Middletown. This fish measured 22 inches in length and tipped the scales at 4 pounds 12 ounces.



E. Mac Wright of Croydon snapped this photo of fishermen trying their luck at the railroad bridge near that town. Left to right, Mickey Duffield, Slim and Jack Messimer and Howard English.



A nice string of bass and bullhead catfish taken on the Perkiomen last season by Harvey Fishburn, Harvey Fishburn, Jr., and Lewis Kost. Largest bass measured 16 inches.

Here's a correction as to the location at which a muskellunge, picture of which appeared in the December issue, was taken. Writes Warden C. B. White of New Wilmington; On page 18 of the December issue, there appeared the picture of Bill Robinson, Stoneboro. The wording at the bottom of picture is in error. This musky was caught in Sandy Lake, Mercer county, instead of Edinboro Lake, Erie county, as previously listed.

Miss Hildred Barton, Paul Thomas and William George of Lewistown, while fishing in the Juniata River in July, scored a catch of 11 walleyed pike, ranging in length from 13½ to 21 inches. Ardent anglerette, Hildred scored the largest catch of the day, the 21 inch walleye.

No. 4 dam in Green county yielded a fine largemouth bass for the creel of Thomas Ramsden of Washington early in the 1938 season. It weighed 4 pounds 9½ ounces.

Fishermen who used crayfish for bait scored heavily on the fighting largemouth bass of Lake Gordon early in the 1938 season, according to Warden Harry Moore of Hopewell. Five dandy bigmouths were taken by Harry Shirey of Ligonier, the largest tipping the scales at 4 pounds 4 ounces. Howard Shirey, his son, caught a fine perch and a 20½ inch largemouth. Eight perch, ranging in length from 10 to 14 inches, were landed by Joe Marietta, also of Ligonier.

The Raystown Branch of the Juniata River in Bedford county furnished excellent fishing for walleyed pike during November, according to a report received from Warden Harry Moore of Hopewell. Two of the finest walleyes to be taken in the stream in 1938 were caught by Dr. E. A. Rouse and Dr. Ralph Howard of Everett. Dr. Rouse's catch measured 28 inches in length and weighed 6 pounds 4 ounces. The walleye taken by Dr. Howard was 26 inches in length and tipped the scales at 6 pounds.





*Photo by Lamar Mumbar*

Winter scene on West Branch Creek, popular Berks county trout stream.



A New Year Resolution for Fishermen

This year, I shall fish for sport  
and take a Sportsman's Creel.



# PENNSYLVANIA ANGLER



TEN CENTS ATLANTIC SALMON FEBRUARY, 1939



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*Photo courtesy Stearne, Wilkes-Barre*

Hon. Arthur H. James  
*Governor of Pennsylvania*

## *To the Sportsmen of Pennsylvania*

I appreciate greatly this opportunity to reiterate my views on the program you have so ardently supported and zealously guarded for so many years.

No one likes to hunt and fish any more than I do, therefore I shall certainly see to it that your interests and my interests in these two sports are thoroughly safeguarded.

I have always contended that there is no room on the voting register for game and fish, and that the administration thereof must therefore be strictly non-political.

Likewise, I am heartily in favor and shall exert my every effort to preserve the Game and Fish Funds. They are voluntary contributions made by you and by me to support the cause of wildlife conservation, and should therefore not be considered a tax in any sense of the word.

Pennsylvania today is the leader in game and fish conservation. It acquired that enviable reputation largely because of your efforts. Therefore, I appeal for your loyal support so that working together we may continue to have the best hunting and fishing in the Union.

*Arthur H. James*



# STREAMER FISHING TACTICS

By R. W. McCAFFERTY

**A**LTHOUGH spoken of by many men as being just another form of wet fly fishing, bucktail and streamer fishing definitely have a style all their own. Witness, that one of the well-known manufacturers in this country is making a special streamer rod. A satisfactory rod for these lures is usually nine feet in length and quite powerful, especially if one is fishing the larger streams. Rods of other lengths are often found to be equally as good for this fishing, but those of a stiff dry fly action are generally found to stand up under the terrific strain which a rod undergoes in this angling.

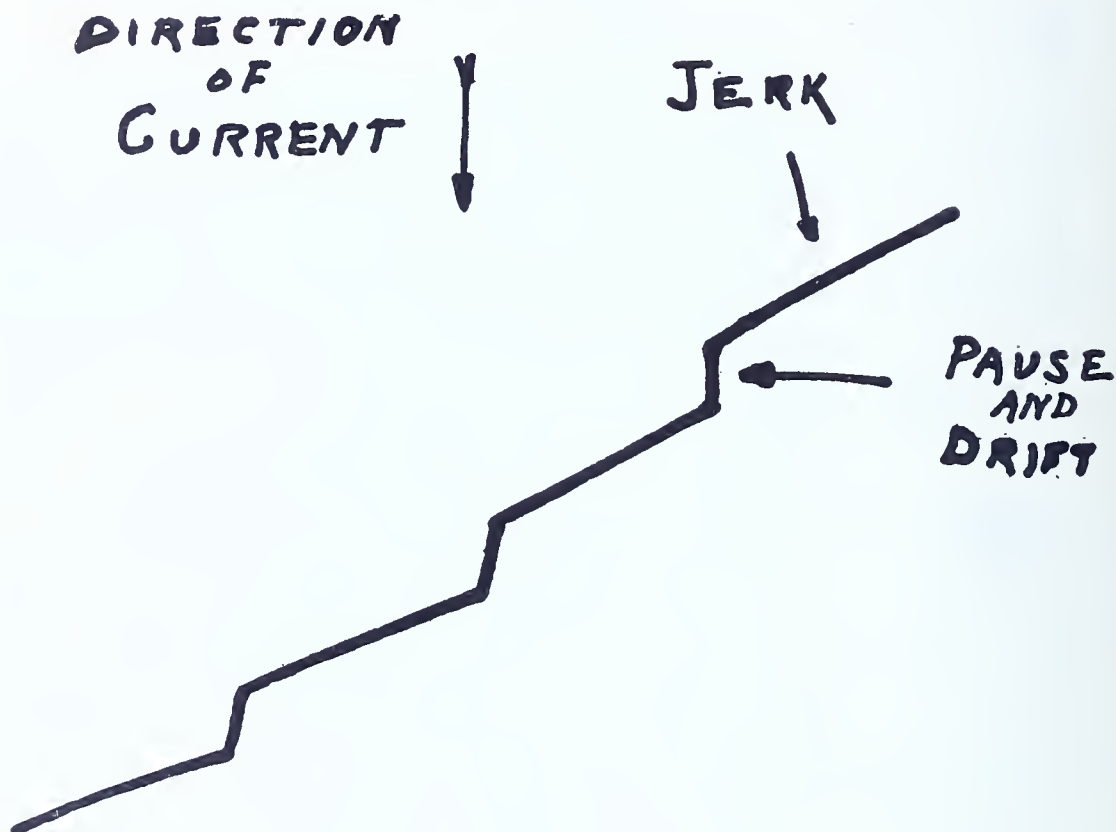
A number of years ago, only a comparatively few fishermen carried this type of streamer fly in their assortment of lures. Today nearly every store, in which flies are sold, carries at least a fair assortment of bucktails and in an ever increasing number of stores, the more recent marabou streamers can be purchased.

There is no end to the number of patterns that can be tied. You will see them in shades of the most somber hue to that rivaling the most gaudy salmon fly. And strangely enough, most of them will catch fish. Many patterns have established reputations for catching large trout. Others catch a larger number of fishermen. You have but to look, though, at the records of a nationwide contest of last year to realize the effectiveness of these flies. The five largest trout were taken on bucktails, as were the seventh and eighth largest. About half of the winners were caught on homemade bucktails which, I believe, proves nothing. The fact remains, for catching large trout with the greatest consistency, bucktails and streamers stand at the top of the artificial lure list.

Certainly the novice will derive more pleasure and satisfaction in bucktail and streamer fishing compared to wet flies or nymphs. Most of the time, while using these minnow representations, your line is taut, or at least more so than in fishing the other flies mentioned. That accounts for fewer strikes being missed or occurring without being noticed.

I believe it can be safely stated here that this fishing method is the easiest of all styles I have ever used. My first experience with "buck" occurred on a "first day." The stream was quite high and discolored and the snow flakes were being blown about by a chill and brisk mid-April wind. Without any previous tutoring, I made the largest catch of browns I have ever taken on the opening day. I fished downstream with a size six fly and kept it in the deeper and less swift currents, and missed only an average of one out of ten strikes.

Nearly everyone is acquainted with the actions of minnows as they play about the various pockets in a brook, and one has but to simulate their actions with your artificial lures to attain success. Oft times I have heard fishermen state which one particular method of retrieve is the only effective manner in which these flies can be fished. I prefer to attempt to vary my methods, no matter what lure I may be using. Just recently there appeared in one of our outdoor magazines, an article telling the proper method of retrieve of streamers in the taking of Landlocked Salmon. The author stated that he had used for years what he believed to be the orthodox method, which consisted of a fast and jerky retrieve. Then, one day he decided to move to a new location, he began reeling in



**METHOD OF RETRIEVE**  
**JERKS SHOULD BE VARIED FROM**  
**3 INCHES TO 3 FEET**

the line and fly. Before he had taken in more than a few feet of line, there was a terrific strike and he caught one of the largest fish of his career. This occurred several times before it dawned upon him that it was the manner in which his fly was moving that had caused the fish to strike.

There seemed to be such a trifling difference between the two methods, but it was sufficient to turn the trick. Had this fellow not been too set in his ideas on fishing he probably would have enjoyed many more tight lines. It is naturally easy to detect our errors after they have occurred, but I consider that to be just one more reason to attempt to become increasingly open-minded in anything pertaining to fishing.

With my first purchase of bucktails I was given the advice to use them most diligently in early spring or during high water periods. "Why?" I asked the salesman. In answer to that I was told most sincerely that those periods were the only time those lures were effective. How utterly untrue was that advice. It was true that these flies proved of great value at the times mentioned, but I have also taken nice trout on them while many anglers were concentrating on the use of the smallest and most dainty flies. The streamer flies have helped a lot to impress upon me that there is no "best time" for any type of lure.

I distinctly recall an incident which occurred on a northern mountain stream several seasons ago. Time—late June; water—very low and clear. This stream abounded with trout ranging from about eight inches to fourteen inches in length, and regardless of the fact that many of them were stocked but several weeks before, they generally were quite selective. The only good dry fly fishing I had encountered was in the extreme early morning or very late evening. During various periods of the day I tried bucktails and streamers and as the fish were quite visible, I had no difficulty in studying their reactions. On the first occasion I tried casting from a position at the upstream end of a pool. I dropped the bucktail with a splash and at other times with all the delicacy at my command. I tried to interest the fish by casting below their positions or pulling the lure past them after dropping the fly at a point which I thought would frighten them least. Every trick I knew was tried without avail. As soon as the fly was within striking distance the fish would scurry to another feeding position. The next few pools proved equally discouraging so I stopped to rest. When I started fishing again I fished upstream. To the 7½ foot by 2X leader which I had been using I tied a 16-inch tippet of 3X gut and then tied on the bucktail. The fishing of these lures, on leaders as fine as this, is not of the



asiest. From some of my fishing friends I have received strong criticisms for recommending a 2X leader for this type of fishing. Nevertheless I am of the opinion that no extra chances are being taken by using leader points as fine as 2X. However, in using 3X, one must use extra precaution for not only is it harder to make the leader straighten out, but there is ever present the danger of snapping off these comparatively heavy lures on faulty back casts or when casting during a windy day.

The first pool furnished a 10-inch brownie on the fourth cast. After locating this fish I worked into a position from which I could cast above him. Then, applying only enough tension on the line to keep the lure from sinking, it drifted to within three feet of my quarry. At that point I gave the fly a series of very fast jerks, simulating as best I could the action of a minnow which had suddenly found itself practically within the reach of an enemy. Simple enough. The trout apparently thought of only a luscious minnow dinner as he struck viciously. Although all the trout I located seemed to be in feeding positions, they did not appear to be feeding on anything either under the surface or on top. Every fish that I had induced to strike was interested only after I employed the foregoing method. With the same leader and fly I tried downstream fishing but could not get the necessary action to interest any fish. The contrary was true; I frightened them all without exception. Here was food for thought for the proponents of downstream fishing anglers. The ethics of good angling demand that we forget our own set opinions and experiment.

My favorite system of fishing in recent years has been to pick a small section of stream and then fish that in every manner of which I am capable until I hit upon some method which proves successful. It does not always work but has done so a sufficient number of times to keep me interested. Usually I begin by casting upstream and after covering a small distance I turn and fish downstream. If the stream is large enough don't fail to try the crossstream casts. This latter method is invaluable at times in fishing streamers, especially if the stream bottom contains many rocks and pockets. Minnows inhabit these spots as do surprisingly large trout. The strikes occur lightning fast here and if one does not want to miss his fish it is necessary to be on edge every moment. The method used in fishing these pockets is entertaining and with careful manipulation of the lure one cast can be made to do a lot of work for you. Use the varying currents to give the fly minnow-like actions. Let the pull of the current on the leader force the streamer into a pocket, then keep the streamer in that pocket, moving it a little from side to side while the current does its work of making the streamer feathers wiggle in a most tantalizing and tantalizing manner. Fish every spot possible in the foregoing manner and you will pick up many nice trout which might not otherwise find their way into your creel. This method can be likened to the operation of a puppet on the end of a string. It is fun for the angler, successful in taking fish, and there is no end to the little tricks that can be acquired by practice.

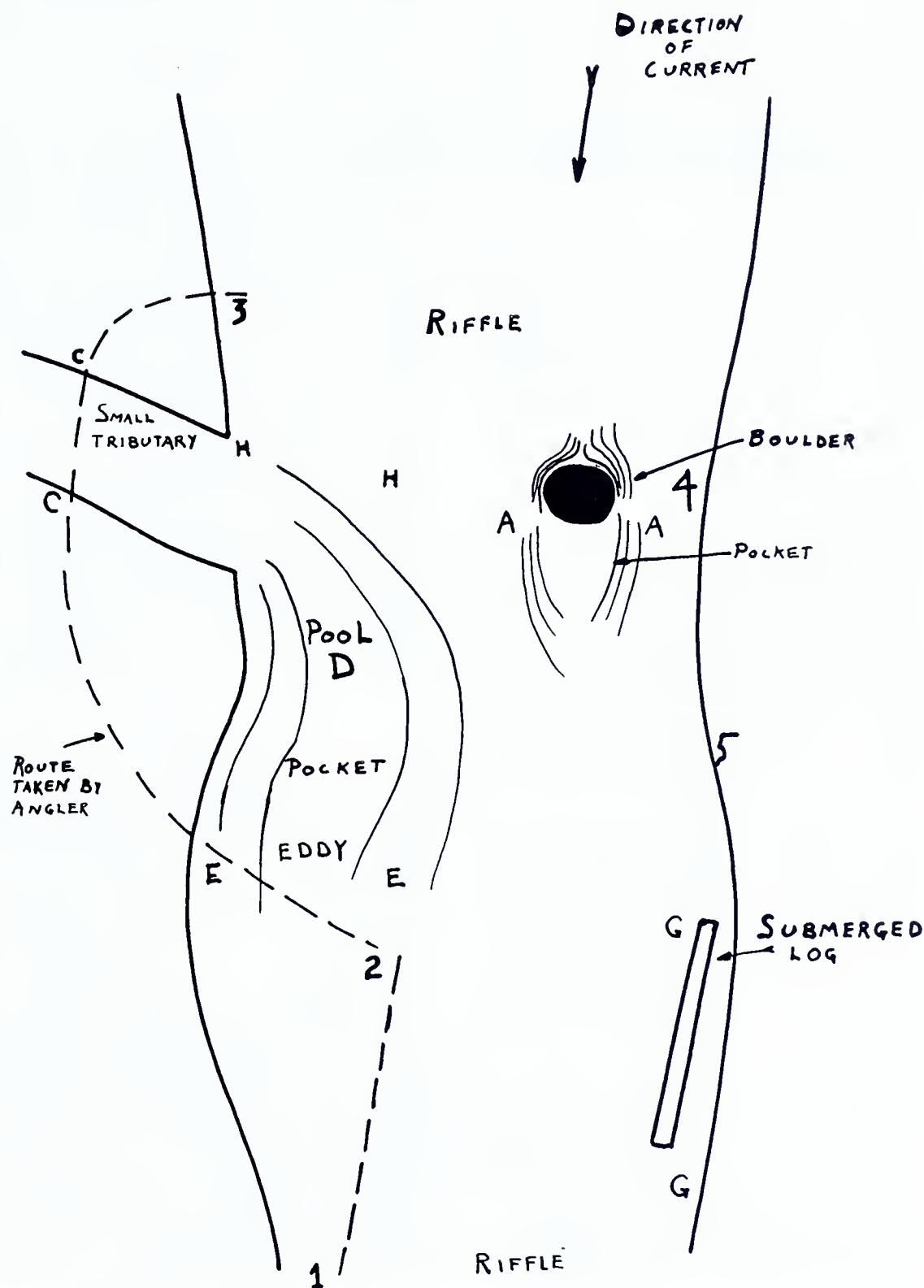
As I begin writing this paragraph I am sitting on the bank of a mountain stream on a section similar to the sketch accompanying this article. In fishing this stretch we would cautiously take position No. 1. From this point we can fish the eddy and submerged log by

making 20 to 35 feet casts upstream. Many casts should be made between points G-G and E-E. Taking in the line with the left hand, the rod tip is raised and lowered, which causes the fly to swim toward the angler in darts ranging from 3 or 4 inches to as much as 3 feet. Each pause allows the lure to drift downstream a few inches, depending of course on the speed of the current and length of pause. Attempts should be made to make the streamer swim in a long, even motion also, letting the natural action of the feather streamers represent the swimming of a real minnow. From this same position you can also fish the broken riffles, which contain many pockets. In doing this, cast downstream and across, retrieving up and across and being sure to play the fly in every pocket, no matter how small it may appear. Remember, too, to vary the speed of your retrieve. After you cover all the casting points once with one speed or variation of darts, go over the same water with another method. If you see you have a trout interested but he will not strike, change your method in

preference to changing the fly. Then, if your supply of tricks is exhausted without results, change flies. Next, move cautiously to position No. 2 and fish with casts to pocket between A-A and above the rock which causes this pocket, and make repeated casts on the edges of the currents which form pool D by casting to positions between H-H. The small tributary entering the pool at the upstream end makes this a good location for trout during low water periods as at these times, being a tumbling mountain brook, the water temperature is low, aeration high, and it probably carries plenty of natural trout food into the main stream. From this position you can also fish cross-stream and downstream over the submerged log you had cast over from No. 1 position.

To get into the next position I would suggest you leave the stream and detour, crossing tributary at point C-C, then back to stream to position No. 3. At this point it would be well to crouch into a low position both on approaching the stream and while fishing. By doing

(Turn to Page 16)





# MID-WINTER PARLOR FISHING

By CLAYTON L. PETERS

THE fishing season being officially closed, does not necessarily mean that a lot of the pleasures that usually accompany fishing are at an end. Some of the keenest pleasure and satisfaction is derived from repairing broken equipment, and the manufacture of the tackle to be found in the average fisherman's array of gadgets.

A few light tools and a small amount of inexpensive accessories are necessary for repairing, and keeping your tackle in first class condition at all times. My tool kit contains a small riveting hammer, the head of which is covered with rubber. This is used for setting ferrules, and the rubber head insures a clean job, without marring the finish of the metal. Several fine files will be found indispensable. The type used in auto ignition work are of a very fine grade and will be found very handy for filing off ferrule pins and rough polishing. A small hand drill and a few drill points, ranging in size from 1/16" to 1/4" are necessary for removing ferrule pins and making broken joint repairs. A small pair of round nose pliers of the side cutting variety, a small screw-driver, tweezers, a caliper rule and a small vise complete the kit.

In addition to the tools, a few accessories will help in completing many jobs, and render a professional finish to your work. Among the articles I would list as accessories is emory cloth of several degrees of fineness. Polishing paddles can be made by coating half of a thin paddle with glue and dipping it into emory flour. This method has been used for years by die sinkers and metal stamp workers, and is very essential where fine polishing is a requisite. Rod winding silk can be purchased in several sizes and in plain and variegated colors. Ferrule cement of the type employing heat, is essential for fastening metal parts to wood. Clear finger nail polish used on wrappings, produces a high luster and forms a celluloid coating that is impervious to moisture and withstands a lot of hard usage. If your work requires a coating of colored enamel, a very good product for this purpose can be secured from stores selling model aeroplane supplies. This enamel is put up in one ounce bottles and retails for five or ten cents a bottle, according to quality.

In disengaging the male and female ferrules of a rod where the bamboo has been broken close to the joint, a piece of emory cloth should be wrapped around the protruding end of the male section as shown at "A" in Figure 1, and placed not too tight but firmly in the vise. Usually a steady pull will separate them quite easily. However, in a stubborn case, a bit of heat applied with a match will cause enough expansion to free the joint.

After the joint is separated the ferrule is again placed in the vise, aided by the use of emory cloth, and the protruding end of bamboo is drilled out. Should the ferrule pin hamper this operation, it should be first drilled out. For this purpose I use a fine dental drill of the type used by dentists for dressing out small cavities in teeth. After the wood is removed the broken section should be dressed down to make a snug fit into the ferrule sec-

tion. In the case of an outer or female ferrule the wood should extend into the metal about seven-eighths of an inch or proportionately in accordance with the size of the ferrule. Note "B," Figure 1. A few drops of ferrule cement is applied to the wood and while it is still hot the ferrule is gently but firmly tapped into place with the rubber tipped hammer. An ordinary pin can be driven into the original pin hole and the surplus material clipped off and polished. The ferrule should then be heated slightly again to insure the cement adhering to the wood and metal causing a solid bond, as the tapping of the hammer might cause the cement to crack away.

The surplus cement having been scraped away, the wrapping is applied next, employing the invisible knot shown in Figure 2. The job is then completed by applying a coat of thin white shellac to act as a color preservative and two coats of cellulose varnish, allowing ample drying time between coats.

In case the entire rod is to be refinished the old varnish must be scraped off, care being taken to follow the flat surfaces of the wood, lest an ugly appearance result from low spots caused by digging in too deep. Fine emory cloth applied lightly will remove any rough spots that happen to remain after scraping. The next step is to apply a thin coat of white shellac which sets very quickly and can safely be polished with pumice flour after the shellac has had an hour in which to dry. The wrappings and guides can now be placed, making sure that the guides are in proper alignment. A thin coat of shellac is added and the rod set aside to dry overnight.

Two thin coats of good spar varnish, polished between coats with pumice or rotten stone will result in a more substantial job than a single coat. The specially prepared varnishes on the market are nothing more than a good grade spar varnish, designed to withstand and repel moisture and eliminate chipping or cracking. Make plugs with screw eyes attached as shown in Figure 3 and hang the rod in a place where the temperature is even and not too dry.

## Refinishing Lures

When the paint or enamel on plugs becomes marred from usage they can be made to look like new by refinishing them with enamel in the original color or a combination that has proven its merits in days spent astream. In refinishing lures, the hooks and their accompanying fittings, i. e. the screw-eyes and eyelets must be removed. The plug is then thoroughly sanded to produce a rough surface for the new coat of enamel.

Model aeroplane enamel serves the purpose for plug painting very nicely and as a wide variety of colors are obtainable, many combinations and blends can be brought into use. While the enamel is still wet it may be sprinkled with a metallic substance known to the sign trade as flitter. This material comes in various size granules of very brilliant metallics, including silver and gold, and owing to its light reflecting properties it not only enhances the appearance to the human eye, but is very attractive to the finny quarry in question. After the decoration of the plug is completed, a bit of

liquid solder should be worked in the screw-eye holes and the screw-eyes replaced before the solder has a chance to dry.

Spinners and spoons sometimes become tarnished and fine emory cloth is used to polish them.

A coating of fingernail polish applied to spoon lures will protect them from oxidation due to water and atmospheric conditions and prevent tarnish.

## Devon Type Trout Plug

A lure that was brought to my attention rather forcefully during the past season is the Devon Type trout plug.

This type lure accounted for some of the largest trout taken last season from Logan's Branch. In fact, the fishermen from that section accept it as an essential part of their equipment.

I made several of these lures in the following manner. From a piece of copper tubing of the type used for auto gas lines, cut a piece two inches long. At each end saw slots at right angles and five-eighths of an inch deep as designated in Figure 4-A. From a piece of aluminum or sheet copper cut a piece like Figure 4-B. This piece is slipped into two of the slots as the head of the minnow, and with a small hammer the metal tubing is gently tapped firmly around the fin piece.

The reason for sawing two sets of slots is that the material taken out by sawing compensates for enough room to cause to taper when the material is forced back into place. After the fin piece is set into place and the tubing forced together, solder can be run into the remaining cracks and around the fin, thereby making a more secure and incidentally neater appearance. Bend the lower extremities of the fin pieces in opposite directions in order to cause concave surfaces for the water to strike against, causing the plug to spin. A rather heavy piece of piano wire is run through this assembly and the hook fastened to this at the rear. At the head end a safety snap swivel is attached to aid in the spinning. A red bead can be placed on the wire shank between the head and snap swivel, which in the opinion of a great many fishermen is an attraction worthy of notice. After a thorough polishing, carefully removing excess solder, a coat of fingernail polish completes the job and the finished product should look like Figure 4-C.

## Landing Net

The bow of the landing net is best made from second growth hickory or white ash, paying special attention to assure a good straight grained piece of material, large enough to rip from it a piece 5/8" x 5/16" by 52 inches long. On the one side of this piece a groove is cut 1/8" deep the entire length except 7 inches at each end to allow for the handle. This groove must be wide enough to allow a piece of heavy casting line or light twine to lie in it snugly. Along the groove drill 1/8" holes at one inch intervals. This will later be used for fastening the net to the bow, by inserting a loop of the net into the holes and passing the cord through the loops, around the entire bow.

(Turn to Page 13)



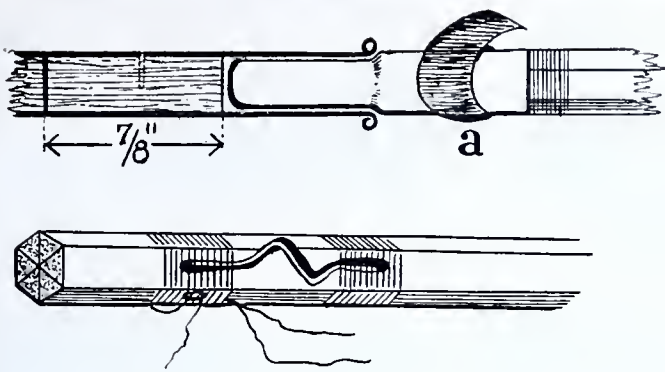


FIG. 1

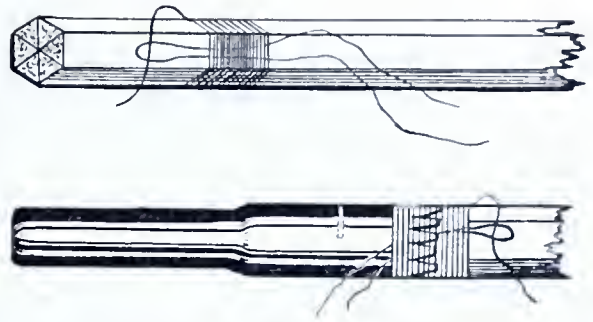


FIG. 2



FIG. 3

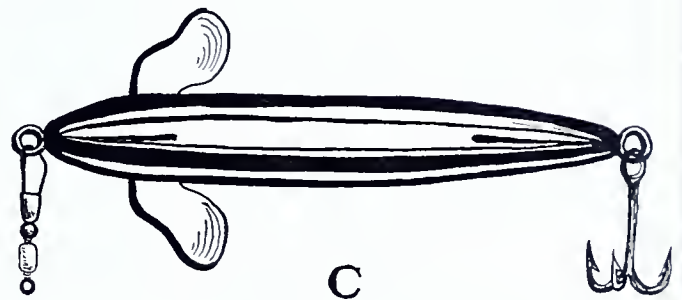
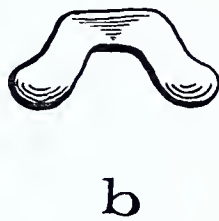
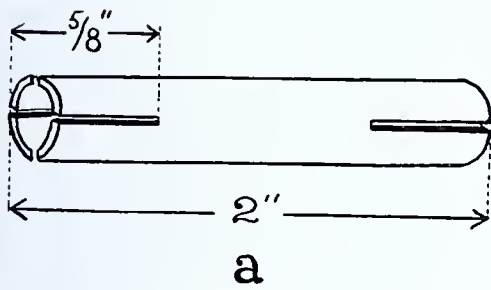
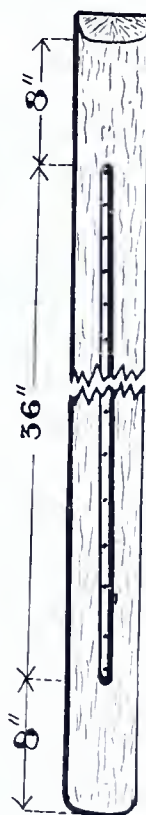
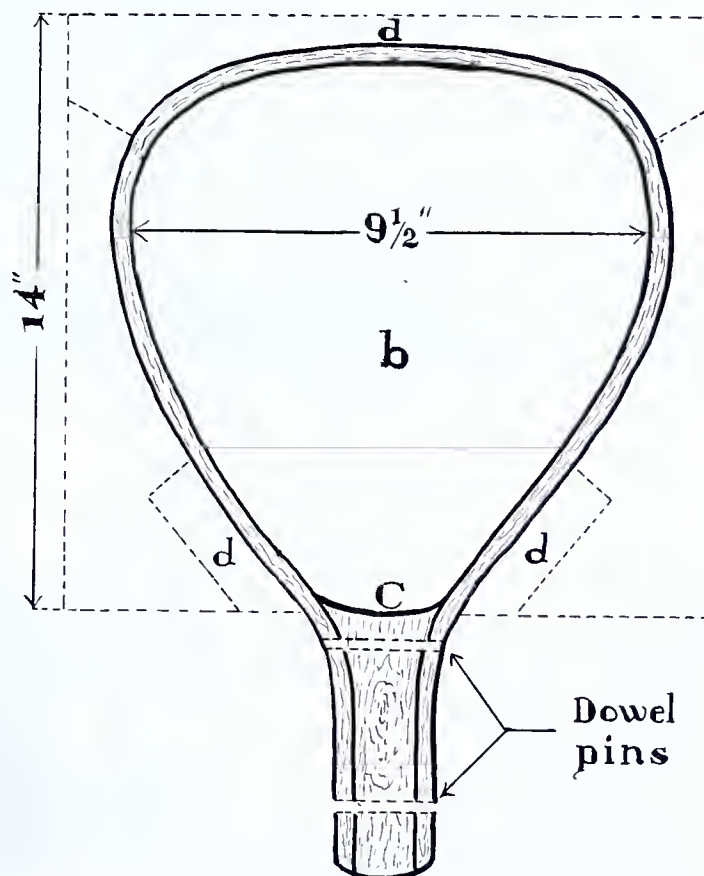
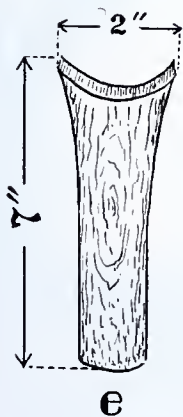
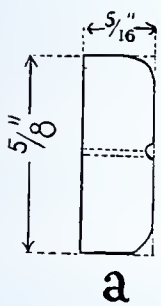


FIG. 4



Bow Detail

FIG. 5



# SUCKER FACTS AND FANCIES

By N. R. CASILLO

UNLIKE guns, I never store my fishing tackle. One never knows when he may have need for those things which we usually associate with the milder seasons.

To the dyed-in-the-wool fisherman, and to use a trite term, the outdoorsman, fishing knows no season. The latter will use his fishing tackle as an excuse for getting out on mild winter days, while the fisherman will utilize any reasonably decent weather as an accessory to the fact. The fact being that he desires to go fishing.

Fishing, as most everyone knows, is a relatively irrelevant sport. We have those individuals who will use nothing but live bait, and then there are those who think it a desecration of something or other if anything but dry flies are used. And I have seen the chap who would not wet a line or even give a thought to fishing if it wasn't for the existence of the black bass. And still, there are those that swear steadfastly by the lowly sucker and the bewiskered bullhead.

The capriciousness of seasons, fish and methods make little or no difference to that fellow who wants to feel the solid pull of a good fish, be it sucker or trout, on the business end of his tackle.

While returning from Harrisburg last winter, I encountered four fishermen trudging through foot-deep snow on their way to a fishing hole on the Juniata. Of course, I stopped and asked the inevitable question.

It warmed the cockles of my heart to witness the enthusiasm of that hardy quartet. One of them stated that they were only on their way to the river.

"Isn't it pretty cold work?" I asked.

"It's not bad," modestly answered the spokesman. "You can come along and see for yourself," he invited. "It's only a couple of hundred yards down to the bend."

Well, for beauty and absolute protection, the spot selected by the sucker anglers of the district was unsurpassed. The flat fronting the river was enclosed on three sides by high, hemlock clad banks. Four or five fishermen already

there lolled about a brisk fire while tending their set poles. A couple of strings of meaty suckers trailing out into the water attested either to the skill of the anglers or to the abundance of fish. It was perfect.

Most sections of Pennsylvania are peculiarly adapted for comfortable winter or early spring fishing; particularly on those days when the sun is warm enough to suffuse the tips of willow branches with those colors indicative of awakening life processes. Evanescent as these signs may be, they are nevertheless, well-nigh irresistible to one who loves to fish or spend a few hours out-of-doors in the company of genial companions.

On such a day last February I grabbed my tackle, and a supply of worms that I keep in an unused cement lily pool located on the south side of the garage, and made for a beloved spot on Neshannock Creek. It is a place that I often visit to observe any winter birds that may be about; its cheerful, open aspect and adequate protection making it extremely attractive to both feathered natives and visitors.

The lovely pool is surrounded by a fairly open mixed forest, the occasional hemlocks lending a touch of lively green to the stark nakedness of their deciduous fellows. At the head of the pool a patriarchal maple leans far out over the water and makes a convenient place from which to fish. I usually set the rod, supporting it with strategically placed nails, adjust the reel in free-spooling position and then resort to the shelter of a big rock on the bank. When accompanied by a companion or two, we're content to sit by a fire, discuss whatever fancy dictates and watch our tackle.

However, there are times when one prefers doing a solo and thereby experience the pleasures of a rapidly declining art. So, on that fine winter day, I sallied forth alone, hoping for the companionship that is usually mine when I visit the Leaning Maple Pool. A paradoxical statement but nevertheless true, as you shall see.

From my seat on the maple I baited the hook with a robust worm and dropped it into the

water, watching the wriggling bait until it disappeared into the translucent depths.

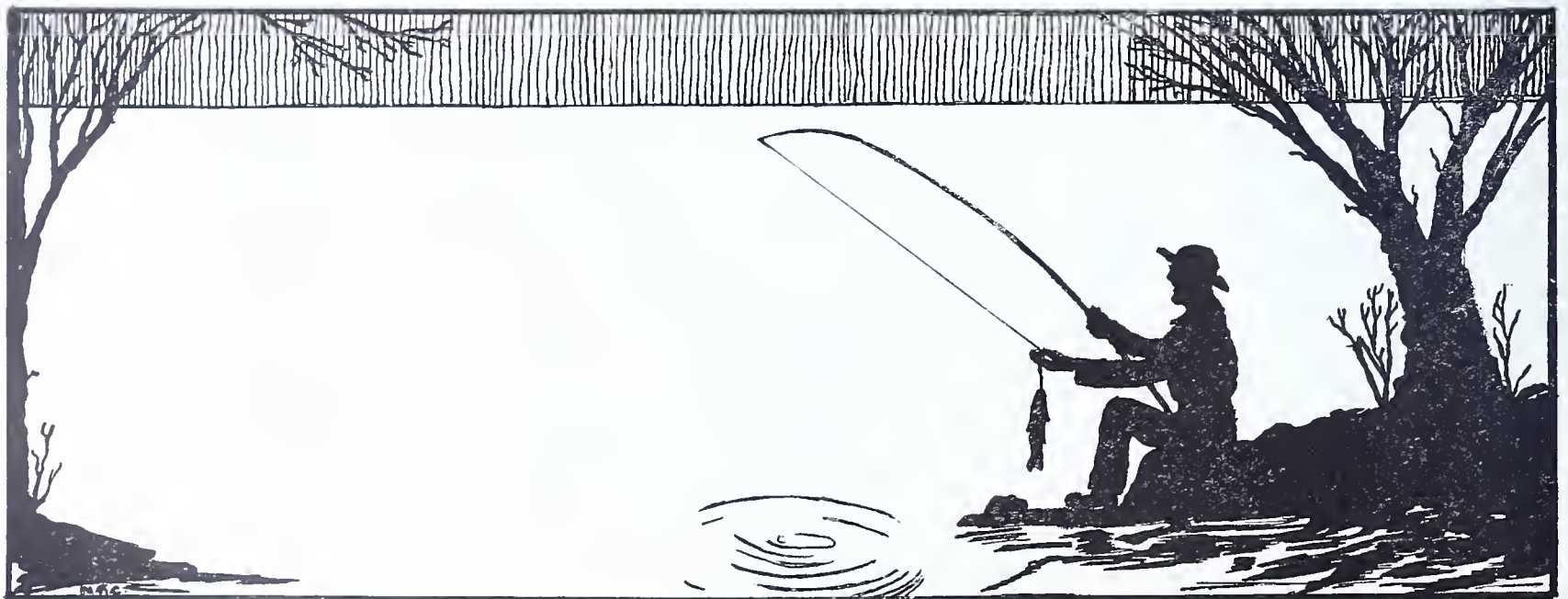
In spite of the brilliant sunshine the February air packed a sting, so after gathering a quantity of wood I built a good fire in the customary spot. Then I loaded my pipe and made myself comfortable against a prostrate tree trunk. Shortly I spied the rod going through gyrations that usually herald a hooked fish.

It was only a matter of a moment to negotiate the leaning maple and grab the rod. The smart resistance of the captive identified it as something other than a sucker. Instead of the stubborn tugs employed by the latter, the tactics resorted to consisted of a series of frantic jerks. Therefore, I wasn't surprised when I pulled a silvery fallfish from the cold water. Fair game and sweet eating, but like the sucker the fallfish is full of bones. However, most of the latter can be made practically harmless if the fish is fried to a crisp brown.

In a few minutes the rod arched again, this time going steadily downward until its tip nearly touched the surface. I watched fascinated. Suddenly it straightened out as the fish felt the sting of the hook. By the time I had the rod in my hands the fish was securely hooked and already going places. But after a couple of short but powerful runs it gave up and was pulled to the surface without further struggle. It was a white sucker weighing around a pound; cold, firm and meaty.

At this point I would like to digress. If both your enthusiasm and appetite have been dulled by catching suckers in mid-summer when they are at their worst, then, it will be a refreshing revelation to see, feel and eat a mess caught in the cold waters of a clean stream in winter. In spite of the low esteem that you may have for the summer-caught fish, you will be agreeably surprised at their condition in cold weather. I frankly admit that a fresh run sucker is as clean and attractive as many of the game fishes. Indeed, on what basis was the sucker determined an inferior food fish, particularly when so many people swear by its succulence and tastiness? I daresay that its name

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COMMONWEALTH OF PENNSYLVANIA  
BOARD OF FISH COMMISSIONERS

Harrisburg

Fish Stocked in the Waters of Pennsylvania—1938

SPECIES	SIZE	AGE	NUMBER
BROOK, BROWN AND RAINBOW TROUT	6" to 21"	10 to 48 Months	1,396,072
BROOK, BROWN AND RAINBOW TROUT	FINGERLING		3,205,475
BLACK BASS	1" to 16"	2 Mo. to Adult	526,608
PIKE PERCH	Fry to 16"	Fry to Adult	7,081,069
YELLOW PERCH	Fry to 10"	Fry to Adult	163,092,418
BLUE GILL SUNFISH	1" to 8"	1 Mo. to Adult	964,387
CATFISH	2" to 10"	4 Mo. to Adult	417,085
MINNOWS	2" to 6"	3 Mo. to Adult	218,028
BLUE PIKE (LAKE ERIE)	Fry	Fry	54,631,000
WHITE FISH (LAKE ERIE)	Fry	Fry	2,000,000
CISCO (LAKE ERIE)	Fry	Fry	1,530,000
PICKEREL	14" to 18"	Adult	4,849
SUCKERS	2" to 10"	4 Mo. to Adult	10,101
TOTAL			235,077,092

### DISTRIBUTION HIGHLIGHTS

During 1938 your hatcheries reached an all time high for production in number and pounds of fish produced. When you consider the size and age of the fish, we feel there are very few, if any, States in the Union, equaling the record.

**TROUT**—For the first time 4,601,547 were distributed—of this number 1,396,072 were trout ranging in size from 6 to 21 inches, and 3,205,475 fingerling which were planted in the tributary streams.

For the first time in the history of the Commission, it is producing its own brown and rainbow trout eggs from a selected stock which has been built up over a period of years at the Bellefonte Hatchery. This relieves the Board of the uncertainty of the market for this species of eggs.

**BASS**—The final figures show that the production and distribution of bass was 526,608 in comparison with 167,265 in 1936 and 357,409 in 1937. This is an accomplishment of which we may feel proud. These bass were 4½ months old and ranged in size from four to eight inches. We are hoping this is only the beginning of a splendid production, and that in 1939 we will be able to greatly increase this number.

**SUNFISH, CATFISH, SUCKERS**—Arrangements have been made so that the

fellow who takes his boy fishing, spending a few hours along some of our lakes and streams will be given a real break by tremendously increasing our production of these warm water fish.

**TANK TRUCKS**—Distribution methods have been revolutionized by the construction of 15 transportation tanks, with 11 more in the making. They not only transport fish in much better condition but will materially cut the costs over the old system. One tank equals three of the old truckloads when transportation pails were in use.

**CONSTRUCTION PROGRAM TO INCREASE PRODUCTION**—The upper and lower Spring Creek Projects have now been completed, which provides the Board with what it believes the largest trout and bass hatchery in the country.

A new development has been started at Pleasant Gap which will add 35 additional ponds.

The Huntsdale Hatchery is rapidly nearing completion and of course has been in trout production for several years. There are now available 130 ponds of different sizes which can be used for trout or warm water fish culture.

Additional work is being done at practically all the hatcheries so that the production of bass and warm water fish will be greatly increased.

### TAKE THE BOY ALONG ON THAT FISHING TRIP

A mighty good suggestion relative to teaching the right tenets of sportsmanship to our future sportsmen comes from Special Warden Sheridan Classen, of Gallitzin. He observes:

While getting about quite a bit in a number of counties, fishing and doing patrol duty as a special warden, one thing was brought forcibly to my attention, the few boys accompanied by their fathers on the streams. This seems to me to be a very sad reflection on Dad.

After all, regardless of how busy we are, if we have time to fish we also have time to train our sons and daughters in the finer phases of angling. It should be Dad's part to take his son along no matter how much of a hurry he may be in and to teach the lad a few things in sportsmanship. A boy is much better off fishing than doing some other things which conceivably in some cases might land him in juvenile court and possibly pave the way to more serious difficulties.

It may surprise you to know that of all the boys I have observed fishing on our streams during the past season, only two of them violated the Fish Laws in any way and these were very minor offenses. Yet these boys were alone and had very good chances to take fish illegally. It seems to me that this fact alone goes to prove the fine calibre of the material we have to work with in insuring sportsman-like fishermen for tomorrow.

You, as a Dad, may be surprised if your boy is given a fair chance to fish with you and provided with some decent tackle just what a good try at it he will make. Then, too, seeing your son with his first legal trout or bass is a thrill you aren't likely to forget soon.

The slogans of our Fish Commission, "If you want more fish, Kill Less," and "If you want better fishing, Obey the Law," are well worth while. Another along the line of training your boy to fish for sport and not for meat comes to mind. If you do that, better fishing days will loom ahead for both of you.

### FISHING REGULATIONS FOR CHEST CREEK

Robert Miller was elected president of the Patton Sportsmen's Association, succeeding Snyder Yerger, at a meeting held in Moose Hall, Patton. Lawrence Hoover was named vice president, Vincent A. Huber treasurer and J. R. Cornelius secretary. Earl Bearer was elected delegate to the county association meeting and the State Federation of Sportsmen, with Charles Kline as alternate.

The Patton organization proposed the closing of Chest Creek from Eckenrod Dam to the Borough of Patton Water Works Dam. Resolutions embodying the proposed closing from December 1st to the opening of the trout season in April will be forwarded to the State Federation and the Pennsylvania Fish Commission. The plan has as its purpose the conservation of the supply of trout.

The next meeting of the Patton Sportsmen will be held February 7th, at which time officers will be installed and committees appointed for the ensuing year. A program is being planned for the occasion.



# JUST PLAIN FISHIN'

## In Which Humble Species, from Eels to Suckers, Furnish Sport

By ALEX P. SWEIGART

**W**HILE to the dry fly faddist and bait casting expert, trout, bass, pickerel and wall-eyed pike are about the only fishes that really count, there are thousands of Pennsylvania fishermen who find virtually all of their sport with more humble species of our streams and lakes. Probably accessibility of waters in which these species are to be found is a good reason for this. The fact remains that Pennsylvania today has perhaps more anglers fishing for catfish, sunfish, suckers, eels, carp and fallfish than does any other state in the Union.

It is the purpose of this article to discuss successful methods by which these species may be taken. Proper study of stream conditions as related to their feeding will also be considered. Although virtually any type of rod, from the cut pole and bamboo to the fly rod and casting rod, (and for that matter, even the throwline) may be used, selection of the terminal tackle, line, hooks and sinkers is of ranking importance. Don't get the idea that successful fishing of this type is a matter for the tyro. Your expert carp, catfish or sucker fisherman is usually one who has made an intensive study of the fishing water he frequents and is able to put to practical use his observations.

It is well to remember that, of the species mentioned, suckers, catfish, eels and carp are notably feeders on or close to the bottom of stream or lake; sunfish and fallfish seem to favor the surface and medium-depth in their foraging. Habits of the first mentioned species dictate that the lure be virtually on or very close to the stream bed and use of lead in quantities dependent upon the speed of the current is essential. On the other hand, we have



Contentment astream with the bamboo pole.

found in taking sunfish and fallfish, naturally floated bait with no lead, or not more than one or two split shot, usually turned the trick. So much for general observations on fishing for these species. We shall now consider each separately.

### Sucker Fishing

The expert sucker fishermen, and there are many of them on the Juniata watershed and elsewhere, know intimately the wintering holes for the sucker schools and the courses the fish follow on their run to the spawning areas. During an open winter, they usually figure January and February as exceptionally good months for taking these fish, although good catches are frequently made in December, and early March has long been regarded as tops. Much of the fishing centers at the junctures of smaller streams with the river or at points slightly below. A sudden raise in the major stream is considered good while a dropping water level is regarded unfavorably. The belief exists that increased current in the stream starts the suckers to working, while by the time the water has started to fall the fish are generally fed up.

Disregarding the type of pole or rod used, the terminal tackle seems to be pretty much standardized. Popular hooks are of the common Kirby variety, small hooks being preferred. In rigging the line for fishing, a favorite method is to attach a sinker of from one-half to two ounces in weight (depending upon the flow of water in the stream at the time) to the end, and then space two or three hooks, attached to the line by short pieces of line 6 to 10 inches in length, at intervals of from 15 to 20 inches. In its feeding, the sucker probes about the bottom with its cup-like mouth, which may be extended or withdrawn at will, and for this reason it is wise to permit the baited hooks to rest right on the bottom. Black lines are popular



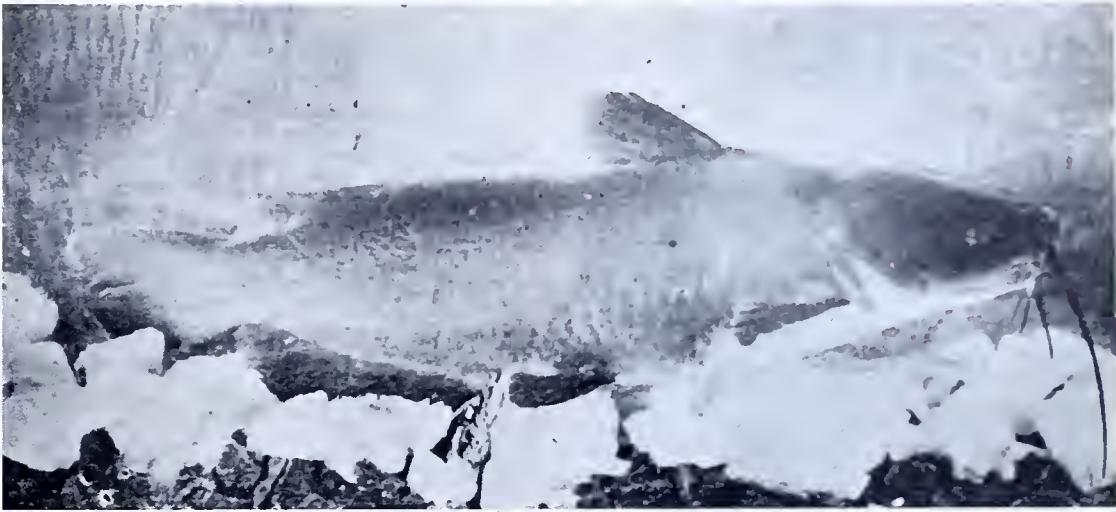
Common Sunfish or "punkinseeds."



The sucker as a general rule takes the lure lightly and in a deliberate fashion. Most popular baits for taking it are the small red worms, distinguished by the red vein running lengthwise under the skin, pink worms, white worms and other small garden varieties. Hooking the bait lightly under the skin so that the ends are lively and kicking seems to add to its attractiveness as a lure. Many sucker fishermen prefer worms ranging in length from 1½ to 2½ inches. With the approach of spawning time, usually in late March or early April, development of the eggs and milt in the adult suckers seems to increase their foraging activities. Incidentally, a favorite time to angle for this fish is immediately after a heavy downpour of rain when the water is extremely roily and raising.

Catfish and Eels

Since similar water conditions seem to govern the feeding of both eels and bullhead catfish, we shall consider fishing methods for them



Catfish are not too selective when it comes to feeding.



Reason to smile. Leon Krupa, expert carp fisherman of Mount Carmel, with his catch from the Susquehanna River.

under the same head. Both species are nocturnal by habit, doing much of their foraging at night or when the water is muddy following heavy rains. While night fishing for bullheads or eels is the generally accepted method, it is well to remember that some of the best catches are made immediately following a rainstorm when the stream is becoming clay muddy and raising.

The scaleless bullhead catfish is perhaps the least selective when it comes to taking food of any of our fishes in Pennsylvania waters, with the exception of the eel. Larger hooks and lead sinkers heavy enough to carry the bait to the bottom and hold it there, particularly in stream fishing, are the ticket. As for bait, the nightcrawler and common garden worm are in top ranking. Fishermen taking bullheads in the Conodoguinet Creek, in Cumberland County, report excellent catches on shrimp, either canned or fresh. Liver, cut in small squares, also accounts for many catfish. So varied in this homely fellow's appetite that we also know of the taking of bullheads on doughball bait being used in carp fishing, on minnows being fished alive or dead, and on peeled crayfish. The bullhead is a determined type of biter, apparently motivated by one desire—to gulp down a morsel of food as rapidly as possible. Hardy and remarkably tenacious of life when taken from the water, he usually puts up a first rate struggle before landing. The spiny rays of the bullhead, located in the fins immediately behind the bases of the gills and in the dorsal or back fin are capable of producing a painful jab, so bear this in mind when taking him from the hook.

For downright greed, you'll go a long way before you find an equal to the common eel. Here is the scavenger of the inland waters, a good thing to remember when angling for it. Back in the days when outlining for eels was still permitted by law, we recall an incident that serves to illustrate this scavenger tendency. Accompanied by an old fisherman, we were walking along the shoreline of a central stream and noticed an exceptionally large muskrat lying dead in the shallow water. The weather was hot and this 'rat had certainly been dead long enough to rank as good buzzard bait. Casually, we kicked the carcass and to our amazement two big eels wriggled toward deep water. Incidentally, this old eel fisherman invariably caught his bait for the outline links in a small run early in the morning of the day he intended to make the set. The baitfish, mostly run chubs and shiners, were then permitted to lie in the hot sun all day, and, having developed a strong

scent by evening, used to bait the hooks. The method of baiting the hooks was unusual and may be put to practical use in hook and line fishing for the eel today. This old timer cut a narrow pointed stick, about five inches in length, with a notch about an inch behind the point. The line was then inserted in the notch, the stick entered into the mouth of the bait and pushed through the vent. The minnow was then pulled down on the hook with the barb extending from the side of its mouth.

"Them eels take the bait headfirst," was his contention, "and this way you're right sartin ter hook 'em deep down so they can't pull off so easy."

Fortunately for our fishing, the days of outlining are gone forever but the methods employed by the old time outliners have not been improved upon. Chief difficulty in baiting in this manner for rod and line fishing would be the necessity of fastening the baited hook and trailer line to the fishing line each time a bait is changed. Another thing to remember in night fishing for eels is the tendency of the species in foraging to work rather close to the shoreline of the stream.

We may list as good bait for eels, in addition to minnows, nightcrawlers and slightly tainted meat. Fish the lure on or very close to the bottom with sufficient lead to weight it down. Larger hooks of the Kirby variety are suitable, as well as a strong line, for a big eel is a powerful customer to deal with. Sinkers should be used.

Carp Fishing

For those who may have gained the notion that successful fishing for carp is a pastime only for the amateur angler, we believe there is a surprise in store. Both scale carp and leatherbacks, in spite of the size which they attain in our waters, rank with our most timid fish and to take consistently carp well up in the weight ranking requires both skill and patience.

First requisite is locating a school of these big fish. Deeper pools and flats of streams in which carp occur usually have a number of the fish. A tell-tale sign that seldom fails in early morning when locating them are roily clouds in the water as a result of their night foraging. Night fishing for the species is increasingly popular but this does not mean that good catches of carp may not be made during the day. Early morning and late evening are favorite times also with the carp fishermen.

Baiting the fish to a chosen fishing spot is a  
(Turn to Page 20)



## BERKS COUNTY LAD GOOD SPORTSMAN



Writes Warden W. E. Wounderly, of Reading, Berks county:

Enclosed herewith you will find a snapshot of Master Rodger Mogel and his setter dog, Duke. Rodger is an ardent fisherman at the age of 10, and he would rather miss a meal than miss his fishing. He does a lot of his fishing in Fox Lake, which is located on Spring Creek, a tributary to the Tulpehocken Creek.

Time and again I meet Rodger along the stream and I have often wished that some of our older fishermen were as clean sportsman as this lad.

I recall one day when he was fishing at Fox Lake. Beside him was James Troutman, a veteran fisherman. Presently, Troutman caught a catfish about 9 inches in length, took it off the hook and started to put it in his live bag. This was too much for Rodger.

"Hey," he said, "why don't you give that fish a chance? He's got tears in his eyes because you took him away from his mother."

Mr. Troutman immediately returned the catfish to the water.

When it comes to knowing the Fish Code, you can't fool Rodger. He has made a study of it and is able to tell the names of some of our fish in Latin.

Rodger's father died a number of years ago, and at present he is living with his uncle and aunt, Mr. and Mrs. Bryan Mogel, of Bernville. One of his fishing buddies is Herbert Klein, 9 years old, of Bernville, and another is Miggie Roggen, stewardess at the Heidelberg Country Club, an ardent anglerette.

## LUCAS HEADS CENTRE SPORTSMEN

At the State Centre, Game Fish and Forestry Association's first meeting of the year, on January 6, Russell Lucas was named president for the coming year at the election of officers.

Elected to other posts were Edward Lodging, first vice president; Claude Gette, second vice president; directors, John Beals, Charles Johns, Dean Allison, Charles Hartle, Jacob Hurwitz; secretary, Maynard Henry, and treasurer, J. F. Kephart.

One of the important discussions of the meeting centered around the state law which forbids the trapping of muskrats in holes. The local association went on record opposing this law as it now stands and urged the game commission to change the law so that trappers in the future will be allowed to trap muskrats in holes.

The association decided to have articles placed in the Philipsburg Journal so that the public will have a better understanding of the game laws and in order that boys interested in sports may be assembled at different times to receive instructions in various sports.

A motion was put on the floor by W. C. Kephart urging the game commission to place a bounty on weasels and goshawks and urging that the protection for skunks be abolished.

Elmer Pilling, Glass City, refuge keeper asked that any persons knowing of places where rabbits were not wanted to notify him. Pilling stated he would trap the unwanted rabbits and place them in other locations.

A committee was appointed to take charge of the annual banquet which was held on January 26 and reports of the game and fish committees were read.

In conjunction with the meeting a rifle shoot was held with the Altoona team which is one of the five teams comprising the league of which Philipsburg is a member. Altoona won the shoot by nine points. The match marked the third time since the league began that Altoona has been able to defeat local riflemen.

"The fish committee report for the year showed the placing of 2,000 rainbow trout, 3,000 brown trout and 500 minnows in Black Moshannon; 2,000 brook trout, 1,000 brown trout, and 5,000 minnows in Six Mile Run; 1,000 brown trout in Cold Stream; 800 brook trout in Black Bear and 600 brook trout in Benner Run; 5,000 fingerling brook trout were planted in Benner Run, Six Mile Run, Black Bear Run, Corbin Run and Tom Tit Run. Black Moshannon Lake received 1,000 perch, 5,000 sunfish, 8,000 catfish, 1,200 pickerel and 1,000 tadpoles and frogs.

The skeet field showed a profit of \$93.79 for the season. The committee was thanked by the members of the organization for their fine work and were reappointed for this year.

Elmer Pilling reported that feed for game would be available for distribution by responsible interested sportsmen and that a load would be obtained for distribution by local persons interested.

Jacob Hurwitz reported that feeding boxes can be obtained through the NYA. Claude Gette was appointed to investigate the securing of these boxes.

## SUSQUEHANNA CLUBS HOLD BIG MEETING

Over 200 sportsmen from all parts of the county attended the annual meeting of the Susquehanna County Federation of Sportsmen's Clubs, held in St. Paul's parish house, Montrose. The members of the county federation were guests of the Montrose club.

Dr. F. S. Birchard, Montrose, presided at the meeting. The first part of the program consisted of a business meeting and election of the following officers for the year 1939: President, Rexford Tuttle, of New Milford; vice president, Dr. F. S. Birchard, of Montrose; secretary and treasurer, C. H. Conrad, of New Milford. Benny Kane, of Susquehanna, was chosen as delegate to attend all district meetings and the state meeting in Harrisburg, in February.

After the business meeting, William Denton, New Milford, Susquehanna game warden, and Keith Harter, Susquehanna county fish warden, spoke briefly. Samuel W. Truscott, of Dalton, a member of the Pennsylvania fish commission, discussed the problems which confront the sportsmen in the fishing world and rules concerning ice fishing.

John Neiger, president of the Lackawanna Federated Sportsmen's Clubs, spoke on the advantages of the federation to sportsmen and lauded the cooperation between farmers and sportsmen which is increasing to the advantage of both. He stated that any club of ten members may join the federation and urged all clubs to join.

James Varner, of Scranton, showed moving pictures of wild life which were most interesting and enjoyed by all present.



Albert Schulze displays a 15 inch smallmouth bass from French Creek. Leonard Kopton at left.





*Question: Have heard that free chlorine used often in purifying water may at times, if concentrated enough, kill fish. Could you give me some idea of the resistance powers to it by the various species?—J. V.*

*Answer:* The following table as to the powers of resistance of various species of fish life in our waters to free chlorine has been furnished by Dr. Glenn V. Brown, consultant for the Fish Commission. Concentrations of free chlorine that will kill fish: Trout, 0.05 parts per million; goldfish, 0.10 parts per million; carp, 0.15 p.p.m.; catfish, 0.20 p.p.m.; bluegill sunfish, 0.25 p.p.m.; suckers, 0.20 p.p.m.; pickereel, 0.30 p.p.m.; sunfish, 0.30 p.p.m.; yellow perch, 0.50 p.p.m., and black bass 0.60 p.p.m.

*Question: What is the reason that fishermen are prohibited from using goldfish as baitfish?—D. M.*

*Answer:* It has been found in fish conservation that indiscriminate stocking, whether it be planned or accidental, has worked untold damage to fishing in waters affected. This in addition to the fact that the goldfish is after all only a glorified carp makes its introduction to any of our fishing waters highly undesirable. It is believed that these fish tend to lose their brilliant coloration after years in a stream reverting to dull, carp-like colors. They are considered highly undesirable and there is always the danger that fishermen, after using them may dump remaining goldfish from the bait bucket into a stream.

*Question: I understand that the limit of baitfish and fishbait which a fisherman may have in his possession has been reduced. Would you explain as to the total number of both which may be held?—A. McC.*

*Answer:* Under a ruling of the Board, the limit on baitfish and fish bait which a fisherman may legally have in his possession at any one time has been reduced to 35 baitfish, minnows, stone catfish and killifish, or 35 fish bait, including water worms, helgramites, mussels, and crayfish. At no time may an individual have in his possession, however, more than 50 combined fish bait and bait fish. This means that he would be permitted to have, say, 35 minnows or stone catfish, and 15 helgramites and crayfish, or vice versa, so long as the total does not exceed 50, and the number in either classification, 35.

*Question: In fishing with the fly for fallfish, what patterns seem to be best?—R. G.*

*Answer:* Not to detract one whit from this graceful fish, but when it comes to selectivity in striking at a fly the fallfish just doesn't seem to rate. We've found that on many occasions a gaudy fly such as the Paramachene

Belle would draw fallfish raises as quickly as our better standard trout flies such as the Ginger Quill. Would suggest that you don't use your better flies for this type of fishing as the fallfish when it takes a fly has an annoying way of messing it up with a sticky mouth secretion. Fly and spinner fishing will draw plenty of fallfish strikes and we've taken them on light bait casting lures. Apparently a voracious desire for food on the part of this fish is combined with a tendency to display little selectivity as to what it strikes.

*Question: We are interested in improving a trout stream and thought that stocking minnows in it might help the food supply. Is this a good idea?—A. L.*

*Answer:* While minnows such as the silver shiner and horned dace or run chub do comprise important items in the food supply of big brown trout, generally speaking they are to be ranked as serious competitors with trout for the available food supply. Chubs and shiners take heavy toll on nymphal forms of insect life as well as current carried food. Sometime when you are fishing dry fly on a trout stream infested with minnows note the manner in which they swarm to strike at the artificial. Too many minnows in a trout stream may be detrimental rather than beneficial.

*Question: What is a good way to get nightcrawlers for fishing purposes?—E. L.*

*Answer:* During dry hot weather, securing a good supply of nightcrawlers for fishing may be quite a job. However, by wetting a lawn with the garden hose in the evening the big worms may often be brought to the surface. After dark, with the use of a good flashlight, you may be able to get a sufficient number for fishing. Tread lightly as you walk on the ground, for apparently, the nightcrawlers are very sensitive to vibrations on the ground. Often they may be entirely out, at other times, only the foreparts may be exposed. Quickness is essential in capturing them. Sometimes when one is grasped it may have secured a hold in its burrow, and if this is the case, squeeze steadily with the fingers, gradually bringing it out. A sharp pull will usually tear it apart.

*Question: Am interested in fishing for pickerel. Could you tell me the best section to go for this kind of fishing?—J. D.*

*Answer:* While the range of the eastern chain pickerel is fairly wide in Pennsylvania, apparently the section in which it is most abundant is in northeastern Pennsylvania, in the counties of Pike and Wayne. Notably a fish thriving in ponds, it is abundant in many of the small ponds and glacial lakes in these counties. With fishermen in that section of the state, it ranks as a favorite game fish.



What with these here snows we been ahavin' an' ice arunnin' in the big crick, sucker fishin' hes been sum slowed up. Jest the same, us fellers thet likes our fishin' kin still talk it over an' figger on ways it may be helped. Now then, no Tom, Dick er Harry kin say thet I ain't a sucker fisherman frum the word go, but I'm atellin' you, Ramapo Jones he hit the nail right in the hed in thet thare letter he wrote ter me erbout fishin' fer suckers in trout runs er cricks afore the trout seezun opens. Reckin thare be a heap o' common sense ter what he says an' you kin find prufe fer it rite here in this neck o' the woods.

Take our big crick. There's a sucker crick ef ever thare wuz one. A feller kin go ter enny place whare one o' our minnie runs cums in an' stand a gude chance o' gittin' a mess o' suckers when the crick's in shape fer fishin'. Fer thet matter, ef a feller even fishes at the mouth o' a trout run whare it jines the crick, he kin rite often ketch him sum suckers. Rite thare oughter be the limit o' the sucker fishin' an' the sucker fishermen wuden't be hurt none at all so ter speak. Shure, jest as Ramapo says, thet's all the water we need fer rite gude sport.

Back last fall we stocked the trout run hevvy with the nicest bunch o' speckled trout a feller ud shake a stick at. Them brookies wuz frum erbout 7 ter 14 inches long, pritty marked ez could be. They's ginerelly sum suckers ahangin' out in the willer hole down back o' Jed Sims' place in the trout run. Jed he's a gude sport but unthinkin' t'other day he figgered ter ketch a few suckers in the hole. Thet thare sucker rig o' his hedn't been in the water fer more'n a minit when a hefty 10 inch trout hits it. Atter he ketched two more trout an' let 'em go keerful ez cude be, he pulled in his line an' quit.

"Thet's cured me o' fishin' in the trout run, Jerry," he sez ter me, "an' enny feller thet likes his troutin' ter be gude oughter figger the same way. Ef the uther fellers thet likes trout fishin' kin wait till trout time opens, reckon I kin do the same."

Young Thing: "The doctor told me such a funny thing."

Mother: "What did he say?"

Young Thing: "He told me I had caught cold, and to come straight home, get dressed and go to bed."



## IMPROVING THE MANADA

**J**UST what can be accomplished on a trout stream through permanent stream improvement is graphically illustrated in the following report on such work by V. R. Breneman, of Hershey.

Until recent years, he writes, many of our boys journeyed miles for a few hours fishing. That is, those who could afford it did. The others, a large majority, did not fish because there were no fish. Yet in 1935, there were hundreds of brown trout caught in a stream that was considered almost hopeless a few years before, the Manada Creek.

On July 18, 1934, there were 40 cans of brown trout released by the Fish Commission in the Manada Creek near the Gap. During the following season, I know of several 14 inch brownies that were taken. One of the accompanying snapshots shows 10 trout that were taken in the Manada. These brown trout ranged in size from 9 to 13½ inches. That the brown trout has prospered in the Manada is very evident from this picture (shown below). The stocking of this stream and the fact that the trout have so well adapted themselves to our very accessible Manada have created more interest and instilled more enthusiasm in our fishermen than anything else ever accomplished by the Fish Commission in our locality.

In 1935, from June to September, never a Sunday passed but that there were some ardent fishermen, either building dams or deflectors or creating hiding places for trout along their



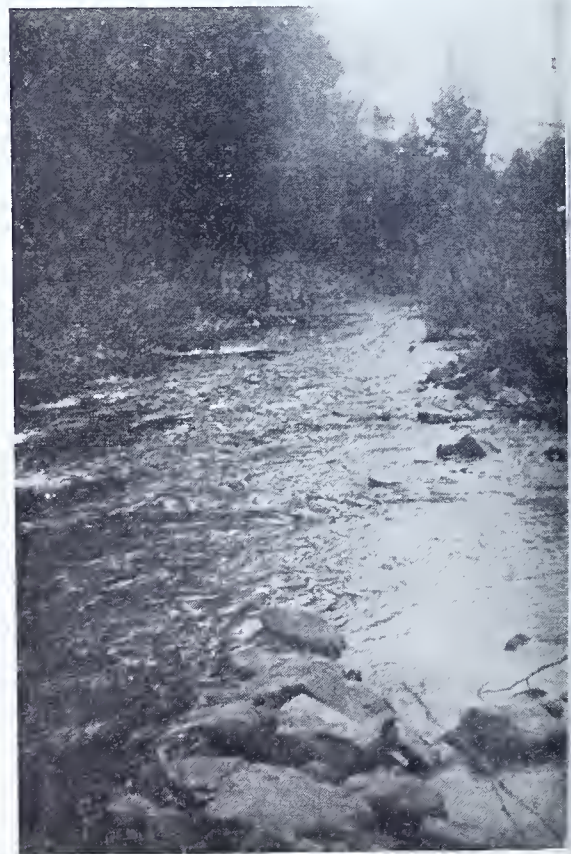
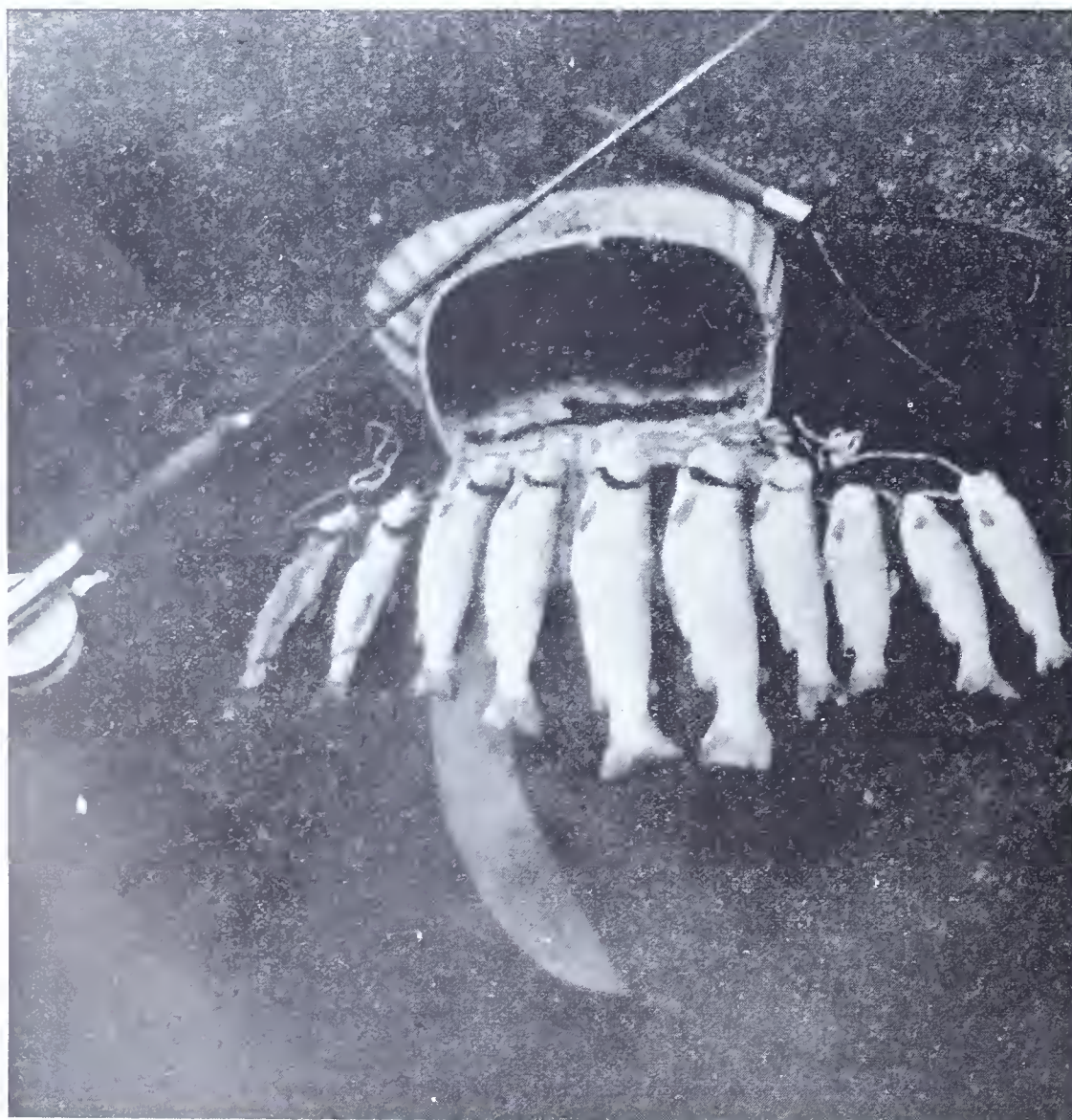
Log and wire dam constructed in Manada Creek.

favorite stream. That their labor was not in vain has been proved to them and in 1936 the stream improvement program was one of the biggest projects ever attempted by our club, the Lebanon Valley Fish and Game Association.

## WALTONIANS MEET IN CHICAGO IN MARCH

Announcement has been made that the seventeenth Annual Convention of the Izaak Walton League of America will be held at the Congress Hotel, Chicago, March 16, 17 and 18.

Sportsmen, conservationists and others interested in discussion of national conservation issues are invited to attend the convention.



Improved section of dry fly water on the Manada.



## FEDERATION MEETS ON FEBRUARY 12

The Directors of the Pennsylvania Federation of Sportsmen's Clubs, who sit as a permanent Resolutions Committee, will meet at the Penn Harris Hotel in Harrisburg at 10:00 A.M., Sunday morning, February 12, and spend the entire day going over these resolutions to get them in shape for the annual meeting the next day. This meeting will be devoted exclusively to the Directors in considering these resolutions and getting them in shape.

Any sportsman wishing to speak on a resolution that has been presented to the Federation will be given a hearing before the Board of Directors and entitled to explain the resolution.

The annual meeting will be held on Monday, February 13, starting at 9:00 A.M., in the House Caucus Chambers at the State Capitol.

All resolutions presented to the Federation must be in the hands of Dr. C. A. Mortimer, Federation Secretary, ten days before the annual meeting and each resolution must be on separate sheets of paper, typewritten and double spaced, it has been announced.

Federation officials advise the sportsmen coming in on Saturday and Sunday nights to make reservations at the hotels in Harrisburg as they will probably be crowded on account of the legislative session, although, it might be a little quiet because of this being a holiday.

## NORTH PENN ELECTS

Augustus Hildebeitel, Sellersville, was elected president of the North Penn Fish, Game and Forestry Association, at the annual reorganization meeting of the group, held in the Sellersville fire hall.

Mr. Hildebeitel succeeds Elwood Poinsette, Bethlehem pike, near Souderton, who previously occupied the chair. Under the constitution of the organization, the president is limited to one year in office.

Other officers elected were: Edward Buchenauer, Telford, vice president; Abraham Mitman, Sellersville, secretary; Herbert Heinrichs, Sellersville, financial secretary, and Harry Moser, Sellersville, R. D., treasurer.

Reports were presented on the deer shoot that was held at Argus, as a benefit for the game association. The event netted a profit of \$106.

## KEYSTONE SPORTSMEN PLAN DINNER MEETING

With 950 members now on the club rolls, the Keystone Fish, Game and Forestry Protective Association of Shamokin anticipates one of its outstanding banquets on Tuesday evening, February 21, according to word received from Charles H. Wentzel, Secretary. A varied program has been planned for the banquet which is scheduled for 6:30 o'clock at the American Legion Building on Independence Street. Commissioner of Fisheries C. A. French, is scheduled as the principal speaker.

## MID-WINTER PARLOR FISHING

(Continued from Page 4)

The detail of the bow piece is shown in Figure 5. The corners on one side can be rounded, which will give the appearance as illustrated in the end detail of Figure 5-A.

A bending form is necessary and can be made from scrap  $\frac{3}{4}$ " material. An accurate method of making a bending form is to first draw the pattern on a piece of paper and then transfer it to the wood.

The shape of the form is shown in Figure 5-B. Four blocks will be necessary to hold the net bow in position while bending. These blocks can be cut from the scrap material from which the bending block was sawed. The blocks and their relative position are shown in Figure 5-D.

The wooden handle filler as shown at "E" can be made from walnut or other contrasting colored wood, as your fancy suggests. The top of the handle filler should be 2" wide and shaped so that the contour corresponds with the lower end of the form at "C," and tapered to  $\frac{1}{2}$ " wide at the end. The handle should be about 7 inches long.

Now with the form and net frame pieces ready, the form is nailed solidly to any convenient flat surface and the blocks "D" are placed in position  $\frac{5}{8}$ " away from the form, allowing ample room for the bow to be slipped or rather bent into position.

The first step in bending the bow is to soak it thoroughly in steaming hot water. After the wood is pliable enough to bend easily, it can be sprung into position around the form, starting at the top and working around each side of the form. The handle filler is placed in position between the protruding ends and held firmly by means of clamps. This setup should be allowed to stand several days to insure thorough drying and setting the bend in the wood. After the bow is entirely dry it may be removed and two holes drilled through the handle to accommodate dowel pins.

The handle filler is now glued into place and the dowel pins driven in. After the glue has dried the handle can be polished and you are ready to fasten the net. A net can be purchased for from fifteen to fifty cents according to quality, and laced to the bow. A net bow so constructed will be light in weight, servicable and a joy for the owner to carry.

## FISHING CONTEST PRIZES AWARDED

The Susquehanna Fish and Game Association held a meeting in the fire hall at which time the annual election of officers was held. Results follow: President, Eugene Kinard; vice president, Elmer Ranker; secretary, George E. Filbey; treasurer, Edward G. Schultz; field marshal, Jacob S. Keller; assistant, Leonard Fisher. An order for 50 rabbits will be placed for the purpose of restocking. The prize of a fishing reel was awarded to Evans McDowell, for the catch of the largest bass. Burman Bailey was the recipient of a fishing rod for the largest salmon, caught in the Susquehanna River. The association reorganized for the ensuing year and will sponsor its annual membership drive.



Beautiful Paradise Creek, Monroe county trout stream.



# Stream Improvement Devices and Construction

By C. JOEL YOUNG

SO MUCH has been previously published on the subject of stream improvement, that it might seem there is little left to be said. One factor should be borne in mind, however, that all streams are not alike. What we do in one stream may be impractical or unnecessary in another. How will we know our stream's needs? It is this thought that will justify this article and simplify getting to the problem of each stream's peculiar needs. Let us start with a vision of the ideal stream. It is, of course, a stream that has all, or the greatest variety, of desirable factors in proper proportion and in fitting relation to each other in the smallest given stream area. Then let us say, "How will we recognize this 100 per cent stream?" Quite likely we will not. If, however, we know the necessary components that are found in the ideal stream, then it is easier for us to visualize what is needed to make a good balanced stream. We can then better judge what our stream lacks or has in over-abundance and thus arrive at a practical answer to those questions of the what, why and wherefor of stream improvement.

No attempt is made to be specific in stepping up food requirements for fish because in the ideal stream, nature takes care of this. In other words our stream improvements must be aids to this end. In making the survey, it is only necessary to answer intelligently where each desirable element of a good stream can become negative. An over-abundance or a lack of any of these factors is a negative finding. All stream improvements are to help nature do her part. With this as the motive we must capitalize upon our knowledge of nature's courses of action. We can best lay our foundations in low water. It is not assumed or intended that each plan suggested by the following sketches should be carried out in making the stream improvements, but rather that the method or methods employed be chosen as evidencing the best or easiest manner to overcome each condition definitely established as being a negative finding in our stream survey.

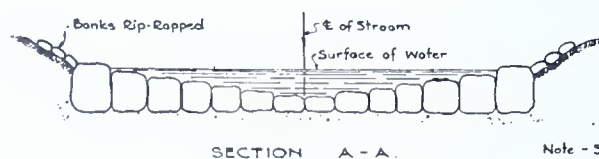
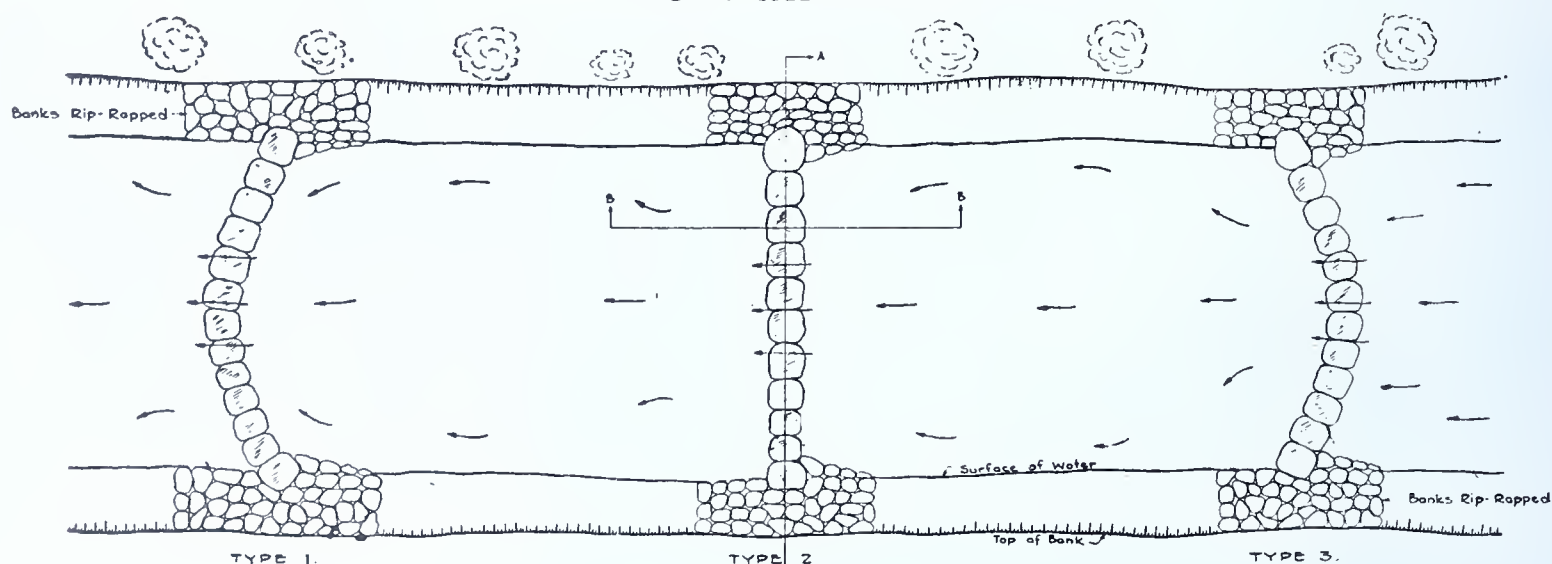
The improving of trout streams is not done successfully by building impounding dams. I am not in favor of building many dams on my trout streams. However, small riffle and boulder

dams are very practical; these dams should be constructed low in the middle to allow water to flow over at all times. A good plan is to leave the opening one-third of the entire width of the dam.

## Stones or Timber?

I have found that stones are more practical than timber and use timber only where stones are scarce. By watching the results of flood waters, I have found that the stone work for dams and deflectors is more permanent than timber. Log deflectors can, however, be built in a permanent manner if the work is carefully done by using a "dead man" to tie the log into the bank and being very careful to anchor the log back far enough so that the ice and other floating matter can not tear the logs out. The nature of the bank is a big factor in anchoring any device into the bank. Clay banks will hold much better than gravel or other soft material. These are all factors that must be considered when recommending the location and type of device to be used. It is utterly impossible to securely fasten a log device into a gravel bank,

THREE TYPES OF BOULDER DAMS  
BY C. JOEL YOUNG

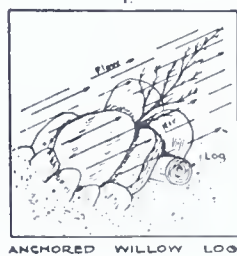


PLAN VIEW

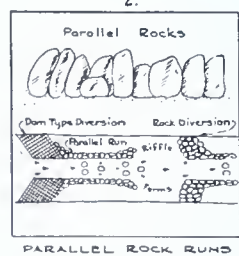


SECTION B-B

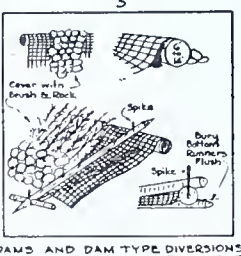
Note - Stones vary in size, being largest at banks and gradually diminishing in size toward center of stream. Large stones should be used across breast of Dam.



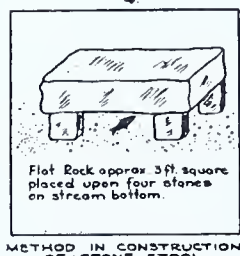
ANCHORED WILLOW LOG



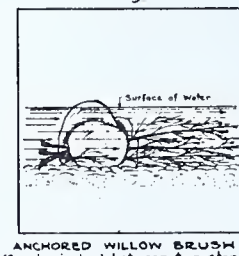
PARALLEL ROCK RUN



DAMS AND DAM TYPE DIVERSIONS USING WIRE MESH REINFORCEMENT (For small streams only)



METHOD IN CONSTRUCTION OF STONE STOOL



ANCHORED WILLOW BRUSH (Brush pinched between two stones)

STREAM IMPROVEMENT TYPES

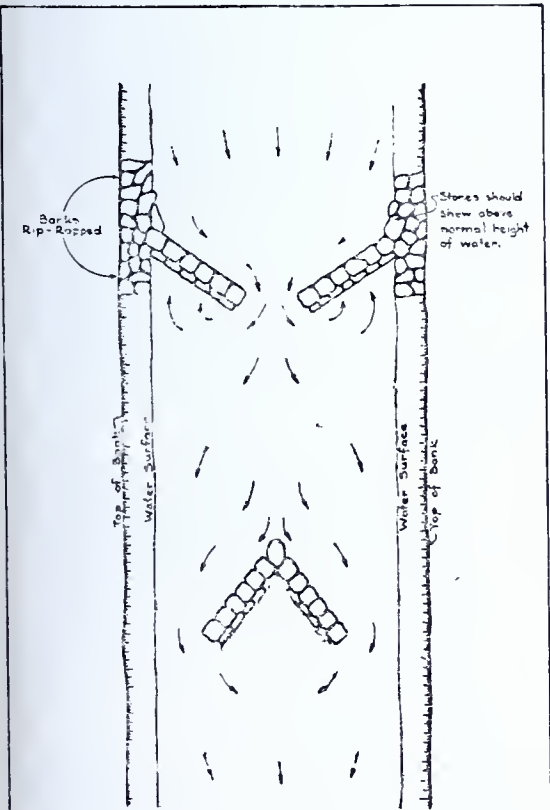


due to the gravel rolling and shifting so that the logs will not hold. The best method to use in gravel banks is to build with stone and pave the bank on each side of the device to stop the water from washing around the end of the device used.

Log covers and parallel logs are best anchored into the bank by hitching a  $\frac{5}{8}$ " cable to the cover and anchoring it to a "dead man" which is buried into the ground bank. Do not use stakes to anchor log covers or parallel logs as the flood waters will pull them out. Another good method is to hitch cable to a tree which is close to the bank. I have also found it a good method to crib banks to stop bank erosion and keep silt out of the stream. All the devices described herewith have been used by the writer and I have found that they will resist flood waters and are just as good after passing through a flood as before. If care is taken to protect the bank where the device enters it no trouble will be experienced in holding the device.

The timber dam is best used in wooded areas where there is lots of shade. If constructed with a log skirting and banks cribbed or riprapped it will be permanent. The log deflector is also recommended in wooded areas and the banks should be cribbed as shown. Logs are easy to get in these areas and this fact makes this device practical through the forest area.

Stone work is best suited to low meadow areas; dams and deflectors with banks paved are very practical. The dams should be built with the middle lower, and the opening about one-third of the total width. That is, a 15 foot dam should have a five foot opening in the middle. This is shown very clearly in the sketch showing three types of boulder dams.



STREAM IMPROVEMENT  
'V' TYPE DEFLECTOR



A model erosion dam constructed on Brown's hill, Bucks county, to prevent topsoil from washing into the Tohickon creek.

## SUCKER FACTS AND FANCIES

(Continued from Page 6)

has influenced the opinions of many who would otherwise give it consideration. And I might add that they are not nearly as bony as some fishes that are esteemed as delicacies.

For more than an hour after landing the first sucker they continued biting regularly, the long intervals between fish allowing me plenty of time to look about. During one of those intervals I spied a familiar summer bird, a common kingfisher, going about the business of picking up a meal. During the course of the day I saw two more of them, apparently summer residents of the far north sojourning in what to them was southern clime. Frequently kingfishers are seen all winter long on open streams in this section.

The day passed altogether pleasantly and leisurely, the activities of the fish being attuned to the mood of the fisherman. Indeed, the out-of-doors, and all its denizens seemed to be taking advantage of the brief respite from winter's cold. Several bunches of crows flapped slowly overhead, passing on to the birch sprouts on the hillside without emitting a single petulant caw. And even more remarkable were the jays, for the several that I saw went about their business without their usual demonstrations.

An interesting observation in connection with sucker fishing is the remarkably few game fishes that one hooks.

Just the other day an officer of our local sportsmen's association asked me if sucker fishermen didn't account for a lot of trout and bass.

Well, you know, his question was a genuine surprise to me, for what he indicated has happened so rarely to me that I have seldom given it any thought. So, I quickly attempted to think of some logical reasons why it happens so infrequently.

"I don't think so," I finally answered.

"Why not?" he came back.

"My opinion is that the cold water blunts the appetite of the bass, while the trout don't usually consort with suckers."

"You mean by the last that the trout are too high-hat for the suckers?" he smiled.

"No," I replied, making a clean muff of the wisecrack, "the trout simply don't frequent the same places until well along in the spring. Once in a while an occasional trout will be caught, but here again, the tactics of the sucker fisherman usually scare any trout that may be about."

That seemed to satisfy him so he went on his way mumbling to himself.

In the meanwhile I tried to recall the occasions when it had happened to me. After cudgeling my brains I could think of only two instances when I caught game fish on my winter sucker excursions. In both cases the fish were brook trout, one of them a beauty scaling a little over two pounds.

So far this fall (written December 15), the weather has been ideal for going astream in quest of the sucker. But most of the anglers in this district don't begin to get out until about early March, then they all feel the urge at the same time and go out in numbers, frequenting favorite spots on Neshannock, Deer and Little Beaver Creeks.

Excellent fishing spots at any time and especially in the winter may be found at the junction of streams. Besides being favored rendezvous of the fish, such places as a rule never freeze and thereby are of easy access to the fishermen. If you "can take it" and desire to experience something unusual in the fishing line, go out in a heavy snowstorm, set your "pole" and then make yourself comfortable about a fire. If someone doesn't spot you and report you to the authorities as a nut on the loose, you'll catch fish and enjoy it.



## TACKLES, LANDS CARP THEN FREES FISH

Writes C. A. Encimer, of Pittsburgh:

"William Balak, a young high school lad who played football for the Mt. Pleasant High School, and resides at Reservoir Street, in Mt. Pleasant, was swimming at the Bridgeport Dam in Mt. Pleasant. He dived into the water and collided with one of its finny inhabitants. Mr. Balak struck out for Mr. Fish and tackled him, with Mr. Fish diving for the bottom and trying to score a touch-down for the home team. But Mr. Balak also wanted to score a touchdown, he stiff-armed him and caught him under the gill. After a furious struggle, Balak, being a husky football player scored a touchdown, by coming up with a large size carp, firmly gripped under the gill. After the carp was measured and weighed (31 inches long, weight 16½ pounds) he was returned to the water to be lured by a more gentle fisherman, with an appetizing doughball, instead of being tackled by a rugged bruising football player."

## JOIN 1-ON-2 CLUB

Toward the last part of the bass season I happened to be fishing one day at a place known as Big Bend on the Allegheny River, above the town of Warren, and was present during the following amusing incident, writes J. A. Calkins, of Johnsonburg.

The fishermen involved were fishing from boats; the two boats were about ten yards off shore, and about thirty-five or forty yards apart up and down stream from each other. The fisherman in the boat downstream received a strike and let the fish run upstream with his bait. At about the end of its long run, one of the fishermen in the boat farther up the river also received a strike. Both fishermen set their hooks and started to play their fish. It soon became apparent that they both had lines to the same fish and it was, of course, thought that their lines had become crossed and were tangled together in some way. A lot of good natured banter passed between them and some of the other fishermen who were there. The two boats were carefully worked close to each other while the fish was being played and the lines retrieved by each fisherman. When the boats were brought together and the fish was landed it turned out to be a good size bass and it was discovered that the fish had taken and was hooked by the hooks of both men. The question then arose as to whose fish it was. This also brought forth a lot of good natured comments and advice from other fishermen. It was decided that the fish should go to the man in the boat downstream as he was using a minnow for bait and the fish had taken and swallowed the minnow and was securely hooked when it struck the other man's artificial lure which was being fished downstream with the current of the river.

These anglers may not be eligible for the 2-on-1 club but should be in a 1-on-2 club.

I am sorry that I am unable to supply the names of these fishermen as I do not know them. Possibly the warden in that section or some other fisherman who happened to be there that day can do so if they should read this.



A carp that was a carp! Thirty seven inches long, it weighed 25 pounds, and was taken by Syd Schlegel of Bernharts after a 20 minutes battle on Safe Harbor dam, Susquehanna River.

## EXCEEDS SUNFISH LIMIT; IS FINED

Sunfish bite in hot weather but it doesn't pay to catch more than the legal limit.

Thomas Ferris, of Scranton, learned this to his sorrow when President Judge Will Leach found him guilty of illegal fishing. The two extra sunfish that Ferris caught at Ford's Pond, near Schultsville, on August 22, were to cost him \$10 apiece.

Instead of paying the fine, Ferris entered bail and appealed to court, where he was represented by Attorney David Miller. Judge Leach, after hearing the testimony of Fish Warden Keith Harter, found Ferris guilty and gave him until January 2 to pay the fine and costs under the penalty of a term in the county jail.

Judge Leach reprimanded Mr. Ferris for violating the Fish Laws.

## STREAMER FISHING TACTICS

(Continued from Page 3)

this, you can avail yourself of the added protection which the broken water of the riffle affords.

The fishing here will be all downstream or down and across. When retrieving through heavy current, fish slowly. It is not natural for a minnow to swim upstream fast through strong current. Wherever possible, they will usually swim around such places and in trying to imitate them, one should remember that.

A good plan to follow, if you must retrieve through the heavy current, is to pause for 15 or 20 seconds every 4 or 5 feet. I have observed minnows acting in this manner and have seen a few caught wholly unawares by some well hidden trout. It is the employment of these seemingly infinitesimal maneuvers that often fills your creel.

This small treatise was not intended to cover every phase of this type of fishing, but I think it will assist many novices in their first few trips astream. Here are two points worth remembering at all times: First, use good leaders of a size not any heavier than is absolutely necessary to efficiently handle the flies or lures you are using. Second, approach each fish or casting position with utmost caution. There is no reason for becoming lax in either of these points at any time. Some good downstream fishing can also be had from positions 4 and 5.

## FISHING, THE UNIVERSAL SPORT!

There are few anglers in penitentiaries—the "Fishing bug" and the "crime bug" seldom reside in the same person.

From George Washington to Franklin Roosevelt, many of our Presidents have been ardent fishermen.

For youth and adult, there is no more beneficial auxiliary to education, than to commune with Nature in her woods and on her waters. The refined angling spirit cannot sin against fellow mortals nor against society.

As the late President Coolidge said:—"There is an indescribable spiritual charm in the gentle art of fishing. It affords a refreshing leisure, a stimulation to the body and a benediction to the soul. There is something natural, homely, wholesome and unspoiled about the fisherman which we shall all do well to cultivate".

Modern angling methods fire the imagination, and challenge the skill. They also appeal to the sense of good sportsmanship and the finer human sensibilities. Fishing is now intensely pleasurable and engaging, since it has eliminated the prosaic,—the old fashioned "sit-in-the-sun-and-wait" methods.

Col. Charles A. Lindbergh's father is quoted as having said:—"The first time I really became acquainted with my son was when I took him on a fishing trip."

The most prized benediction that I received from my own father—"Jim" Heddon, as he was affectionately known,—is the ardent love of angling, which he instilled within me. It is doubly rich with memories of happy hours together.

To Fathers and Mothers, my message suggests that you take your children to the quiet woods and mystical waters. It is Nature's best antidote for the innumerable besetting sins of modern society.

—CHARLES HEDDON.



## OLD DAN ROBERTS' "LITTLE BROWN JUG"

By Robert J. Wheeler

A most unique character was old Dan Roberts. Where he came from we never knew. He lived in a little hut along the Milford road at Tafton, Pike county, and worked in the River Quarry, where he was quarry blacksmith. For many years he was a familiar figure as he tramped back and forth from Hawley to Tafton, always carrying a little brown jug filled with a strange and terrible brand of hooch.

The new Wallenpaupack Lake now covers the site of Old Dan's hut. The stone quarry industry has passed away and the race of hard working, hard drinking, hard fighting "he men," as the movies would call the quarrymen, has fled into history but Old Dan Roberts lives in the memories of the folks of that section as a sort of superman whose feats of strength and endurance filled our boyish minds with admiration and awe.

Old Dan was probably forty-five years of age when he came to Pike county. He began work at the Quarry and took up his abode in the little hut, where he lived alone with his dog. Cement had not yet come into use and the great bluestone quarries produced flagstone, curb, sills, lintels and memorial stone for the trade in the big cities. Stone quarry workers were a hardy race of men, mostly Irish in our section, men who earned big pay and spent it freely on pay nights. A stone quarry town was not unlike a western mining town, somewhat milder perhaps, but as likely to put on a big paynight fight. But the quarry towns harbored no gun men. Fights which often occurred were what the Irish called "friendly fights." No one ever got seriously hurt, although many carried marks to work on Monday morning.

Among big men, Old Dan was a giant. He towered well above six feet in height and could bend a horseshoe or tear a pack of cards with his hands. But the feats that made Dan famous were his weekly bouts with "John Barleycorn." When the work of the week was done, Dan dressed in his "blacks" and went to town. Drunk or sober, Dan was not quarrelsome, unless someone refused to take a drink with him from the "Little Brown Jug," which he always carried with him. This always offended him but his resentment never took a course more violent than to growl and swear at the offender.

The boys were really afraid to drink from the "Little Brown Jug." Out of some diabolical recipe Old Dan brewed a mighty powerful brand of "white mule." He always kept a good supply on hand and generously offered it to visitors. It was a familiar sight when he passed Old Dan's hut to see the "Little Brown Jug" setting just inside the door. Whenever he went to work or to town or anywhere else, he carried the jug with him. After making the rounds of the saloons in town and filling up with the weaker brands which ordinary people drank Old Dan would reel off home, offering a drink to everyone he met. Folks who knew him would dodge out of his way. The "Little Brown Jug" and its contents had a reputation. Whatever he made it of no one ever knew; but Dan seemed to be the only person who could drink it with impunity. I doubt that even today, when the "habituals" seem to thrive on hair oil, varnish,



This catch of fish from Perkiomen Creek, Montgomery county, one bass over the limit and two bass under legal size, cost an angler \$23.50.

electric bitters, Peruna and wood alcohol, if anyone could drink the stuff on which old Dan Roberts trained. As the years passed he became so pickled in this stuff that he was immune from almost any other kind of poison!

Pike county in the old days, as a famous journalist used to say, was noted for two things—rattlesnakes and bad whiskey. Pike is still famous for some things and when Mr. Volstead taught every one to "make their own," the quality of the whiskey made in Pike had not improved much, although no one ever

discovered Old Dan's secret of making "home brew." It died with him.

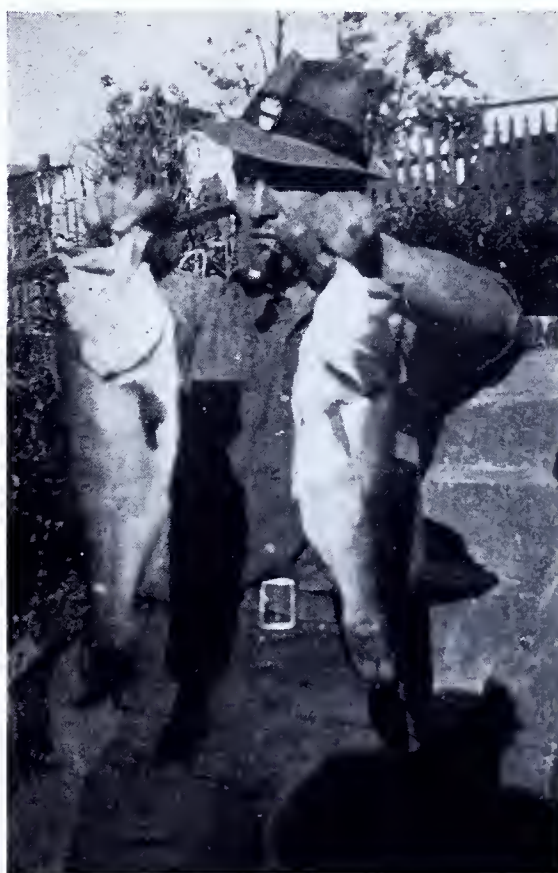
Bad medicine surely was Old Dan. One Decoration Day he went to town early and after the parade was over and he had met some of the boys and had mixed drinks here and there, Dan started for home shortly after dinner time. Along the road, just beyond Wilsonville, he saw a rabbit dart under a little ledge. It occurred to him that he might dig the rabbit out and cook it for supper. So he set the "Little Brown Jug" down and began to pull the loose stones out so that he could reach the rabbit. After a few minutes he had made a hole sufficiently large to reach in his hand and feel about for the rabbit.

As usual in Pike county, there was a rattlesnake under the ledge and feeling outraged at the unwarranted invasion of its privacy, the rattler bit Dan on the hand. Feeling the sting, Dan jerked his hand out. The rattler came with it, not being able in the cramped space to withdraw its fangs quickly enough.

When Dan saw the snake he gave it a sling and threw it away into the brush that bordered the road. Not at all concerned over the bite, he finished digging the rabbit out, took it along home and cooked it for his supper.

Ordinarily, when a man, even a Pike county man, is bitten by a rattlesnake he has some trouble curing it. But after successfully fighting his terrible brand of Pike county whiskey, a little thing like a rattlesnake bite did not worry Dan.

But the strange part of the story came afterward. Perhaps nothing could better illustrate the deadly quality of the old style Pike county whiskey than the fate that overtook the rattlesnake that bit Old Dan. An hour or so after the encounter between Dan and the snake, a passerby met the rattler in the road, throwing a fit. The spectator looked on in horror as the rattler tied himself into a bow knot, barked like a dog, frothed at the mouth and finally, taking its rattle in its mouth, it rolled away into the wods just like a hoopsnake.



Henry Zdanowski, Vandergrift, with two 4½ pounds largemouth bass from the Butler dam.



## VIEWS ON BLACK BASS VISION

None of us will argue the fact that bass, and all other fish in open waters, can see—some, perhaps, better than others. A dogfish, for instance is supposed to have very poor eyesight. Prof. G. H. Parker, who experimented with this fish, proved that it bumped its piscatory nose on all dark objects when first placed in an aquarium and it took some time before it adjusted itself to its new surroundings.

What we are interested in, however, is how well does the average black bass see and how do objects look to him in both the water and the air above.

Except that they vary somewhat according to the depth of water in which the fish live, most fishy eyes are pretty much like those of the majority of animals higher in the scale of evolution, including man. In proportion, the eyes of a bass are somewhat larger, especially those which have of necessity become adapted to seeing in deep waters. In this case, both the eye and its pupil (in almost all fish) are large and the eyes are situated near the top of the head so they can catch any stray light which might penetrate to them.

In the case of various fish inhabiting caves or the extreme depths of the ocean, on the other hand, only rudimentary eyes exist. These organs are of no use to them in such places, because no light can possibly penetrate their gloomy abysmal world.

Like that of other fish, the lens of the bass' eye is rounder than in most other vertebrates and the cornea is flatter. The entire eye is covered with a thin membrane. This is made necessary, undoubtedly, to protect it from the dense medium in which all fish live. Bass, like other fish, have no eyelids and, consequently, are unable to shut off excess light.

Human vision is termed as being binocular. That is to say we automatically see an object with both eyes focused on it at the same time. The vision of a black bass, on the other hand, is monocular. He sees something with only

one eye at a time. In order to see the same thing with the other eye, he would have to change his position completely. This is due to the fact that his eyes are placed far back on his head, while our eyes are situated away toward the front. Neither does the fishy iris expand or contract as ours does.

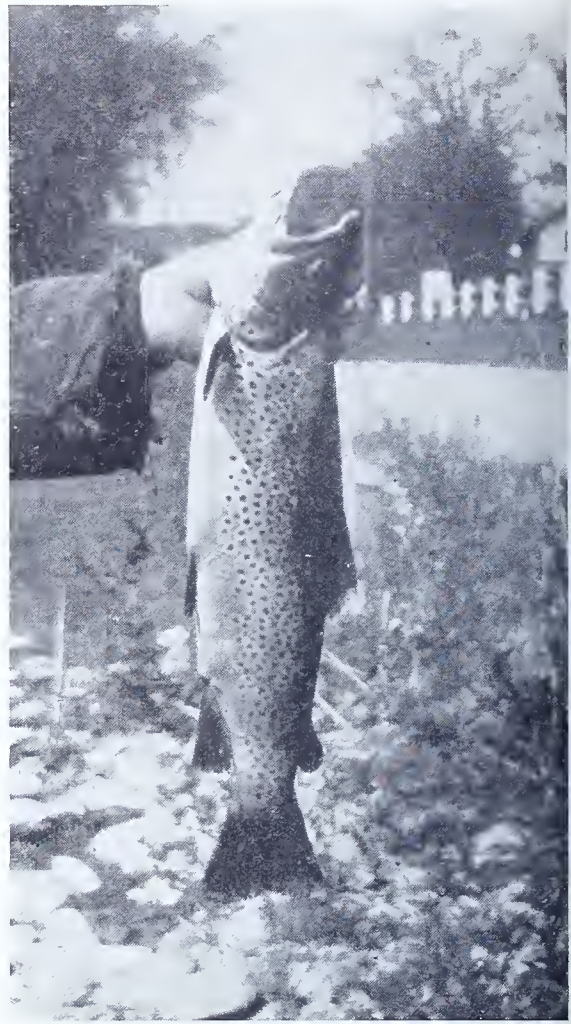
Now that we have told a few anatomical facts regarding the eye, let us consider what the bass can see with it. This, in many respects, is a difficult thing to judge satisfactorily. All we can do is try to place ourselves in the position of a bass and determine what we can see. This has been attempted by a number of both able anglers and scientists and some very interesting things have been discovered.

Of course, our eyes are not adapted to a watery element, and certain allowances will have to be made for this fact. At least, such experiments serve as a guide and give us something to go by. The fundamental laws of optics, which are now rather well understood by physicists, would apply, at any rate.

In the first place, let us see what our worm might look like to a bass. To understand this, we must bear in mind that a beam or ray of light is refracted or diverted when it passes from one medium to another of different density. This, of course, would apply in the case of light passing from air into water and all objects from which rays of light were emanating into the water would appear distorted when viewed from beneath the surface of the water. This can be demonstrated by viewing such objects both with the naked eye and by means of photography.

When the eye or camera submerged beneath the surface is placed in a vertical position, and pointing upwards, the sky appears as a more or less contracted circle of light. The center of this circle or "window," as it is sometimes called, is always directly above the observer. All objects at or near this point, such as clouds, appear perfectly normal in shape.

As we look down towards the horizon, however, objects become more and more distorted; and tests seem to indicate that the horizon



The Big Bushkill in Pike county yielded this 19½ inches, 3½ pounds brown trout to Gaylard Carper of Bushkill.

of bass' vision is much more limited than ours if we are in the same position as the fish.

When it comes to objects situated wholly within the water, there is not much to be said. There is no doubt that in quiet water at least, they present a normal appearance to the fish as they do to us. The proportions and size of all such objects are conventional and natural.

One thing more about vision in general—how extensive is the field of vision of a black bass? This depends in the first place on the depth the bass is located beneath the surface of the water. Regardless of this fact, however, everything is in the range of vision that is within a 48-degree angle to the perpendicular. It can readily be seen, therefore, that a bass a few inches below the surface would not have a very large field of vision. This field would increase materially as the fish moved to a greater depth.

It is entirely possible that a fish might be aware of objects outside of this 48-degree angle, but such perception would, probably, only come as a result of reflected light. This would be true especially in the case of light emanating from the gold tinsel of such flies as the gold-ribbed Hare's ear or similar tinsel on larger black bass lures.

Feeding black bass are, however, usually not very far below the surface, especially when they are prowling shore shallows.

This means the placing of lures with some accuracy where you have seen a bass rising, or where you have a suspicion that a bass is lying.

All of this may give a person a few things to think about as he wanders along bass-streams or casts his lures into river eddies. All we have to do to know that a bass has good vision



This fine catch of rainbow trout, 11 to 15 inches in length, was made on opening day of the 1938 trout season on Little Conneauttee Creek, Erie county by Dan Ryan, W. E. "Biff" Hardinger, Nevin McKee and W. L. Weber of Erie.





Four Mile Run, one of Tioga county's most picturesque brook trout streams.

s to watch them work, especially when light conditions are right, or even at night. When hooked, you will note that they rarely bump their heads.

The eyes of all fish, including the bass, like those of most animals, are very quick in detecting objects in motion. Anything stationary, or moving very slowly, seldom arouses their suspicions.

In the final analysis, however, only a fish knows what a fish can see—and only a fish mentally interprets such vision. It is very doubtful if we will ever reach a complete understanding and appreciation of the whole matter.

## BASS CATCHES GOOD IN MONTGOMERY WATERS

Despite the fact that there have been very few days that the streams were in good condition for bass fishing, a large number of big bass have been taken in Montgomery county waters, reports Warden Harry Cole of Norris-town.

Harvey Fishburn and Lewis Kost had their limit on the opening day, the largest one was 16 inches, and Clinton Sullivan caught a smallmouth on the opening day measuring 20¾ inches, weight 4 pounds, and girth 12½ inches. These were caught near Salford in the Perkiomen. Leopold Biskup caught a 16¼ inch largemouth bass in Maple Beach. Lloyd Oberholtzer caught a smallmouthed bass in the Perkiomen at Delphi which was 21½ inches long and weighed 3 pounds 14 ounces. Rudolph Repper caught a largemouthed bass 23¼ inches which weighed 4 pounds 10 ounces. William Brownback caught a 19 inch smallmouthed bass in the Perkiomen at Schwenksville. W. B. Grater caught an 18½ inch smallmouthed bass in the Perkiomen at Salford. Mrs. Bessie Gulack caught an 18½ inch largemouthed bass and Mr. Gulack caught a 17 inch and an 18 inch largemouthed bass in the Perkiomen at Hartley's Grove. Abram Kulp caught an 18 inch largemouthed bass in the Perkiomen at Rahns. Norman Winner caught an 18 inch, two 16 inch and a 12½ inch bass in one evening on the Neshaminy. Quite a number of

bass ranging from 16 inches to 24 inches have been caught by fishermen that I did not get the detailed information on.

Bass ranging from 16 inches to 21 inches have been taken on the Swamp Creek from a boulder dam built last year.

Joseph Eckert caught a bass in the Mill Pond at Spring City. The bass was 21 inches long, and weighed 6 pounds.

William Hilbert caught a 31 inch carp in the Swamp Creek.

A Pottstown fisherman caught a 24 pound carp in the Swamp Creek and two weeks ago one was caught in the Perkiomen weighing 26 pounds.

Special Warden George March of Pottstown caught a 19 inch bass on a plug at Salford.

Mr. Hobbs of Bristol caught a 27 pound snapper in the canal while fishing with a buck-tail wobbler.

## HOGESTOWN RUN PROJECT UNDERWAY

An \$18,750 W. P. A. project, sponsored by the Mechanicsburg Sportsmen's Protective Association, is underway near Hogestown in Cumberland county to provide new trout-fishing waters in Hogestown Run, on a site described by the Fish Commission as ideal for brook trout.

Three fields have been flooded by a pond formed behind a dam across the run, which is described as excellent for trout development. The dam was closed recently, allowing the pond to fill for the first time. Some 500 cubic yards of rock and earth were moved by hand and by wheelbarrow to make the dam, said G. Walter Gelwicks, president of the association and foreman on the construction job.

The dam has a breast of 180 feet, is 20 feet wide and is equipped with two spillways. Much of the land was donated by sportsmen of the region.

Constructed in each "dam" or pool beneath the overhanging trees is a spillway, made of huge, flat rocks which will permit the trout to jump from one water level to the next higher pool.

## SCHOOL CLUB ACTIVE IN WILLOW PLANTING

The Outdoor Club of Philipsburg High School in Centre County is very much interested in developing intelligent sportsmen and conservationists, writes Russell M. Lucas, Club Instructor. Its members believe in improving and maintaining in all possible ways the streams and waterways of this Commonwealth. At the suggestion of Fish Commissioner Harry Weber and with his help the club set out to improve the streams in the vicinity of Philipsburg, Centre County.

Through Mr. Weber several thousand willow cuttings were secured in April, 1938. The first of these were planted along the banks of Cold Stream where it flows through the playground of Philipsburg. Plantings were made along both sides of the stream in this manner.

The boys worked in teams of three. The first boy carried a short, pointed iron rod (a stove poker serves admirably well) with which he made a hole in the ground for planting. These holes are made at an angle with the perpendicular and at about five yard intervals. The second boy carries the bundle of willow cuttings and hands them, one at a time, to the third boy who places the twig in the hole opened by the first boy. The cuttings are from twelve to eighteen inches or more in length and are placed in the hole so that several buds are left above ground. Should the twigs be too long they are cut and made to do for two or more plantings. The earth is then pressed firmly around the cuttings and the group then moves on to make the next planting. The boys of the club readily took to this method of planting and were very interested in the work.

After planting along the playground which is within the borough limits, the boys went farther upstream to continue their work.

Beginning a short way above the new Cold Stream Dam, the boys planted the right side of the stream (going upstream) as far as Barker's Dam which is just a few hundred yards below the State Game Refuge Lands No. 33. The other side of the stream was only planted from Cold Stream Dam to what the boys know as the "Little Dutch" swimming hole. Work was stopped here as the supply of cuttings was exhausted.

The club is very enthusiastic about this work and if the cuttings are made available, plans to enlist the aid of the local sportsmen's organizations and the boy scouts and make similar improvements along the trout streams of Black Bear Run, Six Mile Run, and Black Moshannon Creek.

## OFFERS SUGGESTION ON WILLOW PLANTING

One of the most enthusiastic fishermen in Montgomery County is Bill Fenstermacher, of Collegeville. He writes:

Are more willow twigs to be planted this spring? Are many of the twigs that were planted last year still growing? I found that most of the willow shoots planted along the Perkiomen Creek were placed in meadows and subsequently eaten by cows. Others died because they lacked water. Why not plant fewer twigs but emphasize care and protection in doing so?



## JUST PLAIN FISHIN'

(Continued from Page 9)

method employed successfully by veteran fishermen. This may be accomplished when sweet corn is in season by tossing grains of the raw corn into the water at a given spot every evening for a week or more. When the carp are coming regularly to the spot, small hooks are embedded in a few of the corn grains and the circus is on. Any question as to the strength and the dogged battle of which a ten-pound carp is capable is quickly dispelled from the mind of an angler making the catch.

Various types of carp bait are used successfully. Doughballs, comprised of corn meal and molasses, kneaded to a consistency suitable for staying on the hook, are widely used. In addition to sweet corn, diced potatoes are sometimes fished. Worms and pieces of peeled crayfish have also served in scoring catches.

Patience is a prime requisite with the carp fisherman. After a good cast with the lead weighted line (strong black line as fine as possible and a good casting reel are popular with some fishermen) the line should be permitted to go slack from the tip of the rod, in this way assuring that the baited hooks will rest on the bottom. About the only evidence that a carp has taken the bait at first will be a gradual and gentle tautening and slackening of the line as it works the lure into its sucker-like mouth. Then comes the run, the hook is set and the battle is on.

In preparing carp for the table it is wise, particularly with larger fish, to skin and then remove the lower flank which serves to eliminate much of the objectionable muddy taste.

### Sunfish and Fallfish

Now let us turn from the bottom feeders to three Pennsylvania fishes that annually provide a lot of sport for the rank and file of anglerdom, the common sunfish or "punkinseed," the bluegill sunfish and the fallfish, largest member of the minnow family in Pennsylvania. To get the most sport out of this phase of angling, a fly rod, fairly good level line, a three-foot level leader with one or more loops, and snelled trout hooks, sizes 6 to 8, are called for. After all, the common sunnie in our waters rarely achieves a length over 6 inches, an 8-inch bluegill is something to write home about, and the slender, silvery fallfish commonly attains lengths up to and occasionally exceeding 14 inches. All three are swift in the strike, and the sunfishes are, considering their size handicap, game little fellows to the core. Light tackle adds much to the sport of taking them.

In past issues, fly and fly and spinner fishing for these species was discussed by Chas. M. Wetzel. Since, however, it is the purpose of this article to deal with general rather than specialized forms of angling, we shall consider only fishing with natural lures. There are a number of natural baits that annually account for great numbers of sunfish and fallfish. Included in the list are grasshoppers, crickets, grubworms, small garden worms, small helgramites and very small minnows, particularly shiners. These natural lures are best fished without lead in quiet portions of stream flats, very often near submerged logs and brush, in taking the sunfish. Small minnows can be fished successfully while alive by hooking through both lips in the conventional live bait manner.

Of the warm water fishes, the fallfish seems



Dr. C. B. Kershner, prominent Berwick sportsman, trying his luck for trout in Coles Creek, Columbia county, on opening day last season.

to be nearest to the trout in this respect—that it appears to require faster sections of the stream with an abundance of oxygen, and is usually found in the fast swirls at the bases of riffles. It is extremely swift in the strike, but after a preliminary first run that would do credit to a fish of much higher game ranking, tires quickly and puts up only a mediocre resistance. Casting grasshopper, cricket, angleworm or grubworm across current in the riffle and permitting the force of the current to carry the lure naturally into the swirl at the base has proved productive of many fallfish catches. This silvery fish is a voracious feeder and apparently is not at all selective when it comes to hitting any of the natural lures listed.

A noteworthy angle to the growing appeal which the humble fishes discussed in this article hold with the fishing public is that, under the Fish Law, they may be angled for at any time of the year. Certainly they add a touch of real variety to days astream in the Keystone State.

What does the bride think when she walks into the church?

"Aisle, Altar, Hymn!"

Chief of Police: "Can you give a description of your missing cashier?"

Banker: "He is about 5 feet 5 inches tall and \$70,000 short."

## CLYDE KING HEADS APOLLO SPORTSMEN

At an enthusiastic January meeting of the Apollo Community Sportsmen's Association held in the Council room of the local Municipal building, R. Clyde King was elected president of the organization for 1939. Going into office at the same time were Foster Branthoover as vice president and W. F. Pauly treasurer. Frank Swast, Jr. was retained as secretary of the organization.

E. A. Beck was elected director for a five-year term and Lyle Clawson was chosen a director for a two-year term. W. F. Pauly was named Delegate to attend Federation meeting while R. Clyde King was chosen as Alternate.

Frank Fulton, 1938 president, before going out of office, appointed an auditing committee consisting of Foster Branthoover, T. Kin Smith and E. A. Beck to audit the 1938 book.

The complete list of directors are as follows:

Five-Year Term .....	E. A. Beck
Four-Year Term .....	T. R. Gra
Three-Year Term .....	Albert Parson
Two-Year Term .....	Lyle Clawso
One-Year Term .....	N. B. Johnsto



# He Measured A Hoop Snake

By WM. ARTHUR BORLAND

THE "tall" tale of the experiences of a Lackawaxen man with a hoop snake as told by Mr. Robert J. Wheeler in the August issue of the PENNSYLVANIA ANGLER served to arouse my memory from its lethargy and recall an encounter with a Pike County native who not only saw a hoop snake but who actually measured the length of this elusive member of the reptile family!

There is an indefinable something in the alubrious climate of Pike County, especially in that section of the Delaware Valley between Bushkill and Milford which seems to stimulate the imagination; and further, it also aids the narrator to import a tone of plausibility to his tales. It is a pity that Baron Munchausen did not migrate to that sparsely settled county of Pennsylvania; for if he had he would have found ample material for another volume of his delightful tales.

Three ardent fishermen, one of whom was an amateur herpetologist—the latter always wore high shoes and carried with him a bottle of potassium permanganate, strychnine sulphate and a small scalpel, the so-called necessities in those days for neutralizing the effect of snake venom in the blood—were seated in a horse-drawn conveyance which was moving leisurely down the Milford Pike (also known then as the River Road). It was during the days when the passing of a vehicle along the shale road attracted the attention of the numerous summer boarders engaged in tennis or croquet. This was, of course, before the automobile changed the habits of the people—when comfort and rest were believed to be the requisites of a vacation.

They were on their way to Echo Lake to see if the bass in it could be coaxed to sample their helgramites and stone cat fish as those in the Delaware River had refused to do so for several days, probably because of the high, riley water. The "hired" man who was driving them like many others in that vicinity was rather loquacious. With no prompting of any kind he told us that he had been to Port "Jarvis" and Stroudsburg but he had no desire to venture farther. "The cities I read about can't be much different; only bigger and noisier. I've lived in Pike County nearly forty years and I don't believe there is a better country anywhere. I like it and you fellows must like it or you wouldn't come here every summer".

"Tell me," asked the snake man, "are there many snakes around here?"

"You bet there are and they do funny things too. Only the other day I saw a pilot charming a little wren, and in a few minutes, and quicker than you could shake a stick, he leaped through the air and swallowed the bird".

Shortly afterward they came to a pile of discarded fence rails, on top of which a copperhead was sunning himself. The snake student got out and stood about three feet from the rails. He waved his index finger in front of the snake, which tried to strike it; failing, he settled back to his original position and tried again, with no success. The copperhead was shot and found to be thirty-four inches long.

"Well," said the snake man, "that pilot did not leap through the air".

"Never saw one act that way before, He must have been sick", said the hired man.

"How about water snakes. Ever have any trouble with these harmless snakes?" asked the snake man.

"I never give 'em a chance. They ain't harmless like some people think. I've seen them eat fish eggs and baby fish and the more they eat the less fish there are for us to catch, so I kill them on sight", replied the hired man.

"Did you ever see a puff adder?" he was asked.

"Plenty of them and I steer clear of them. They are as bad as rattlers and pilots. Years ago on a hot night my Father was walking down to Tom Shay's to 'wet his whistle' I guess and he sat on a log. A puff adder came from under the log and bit him on the ankle and blowed poison in it. His leg swelled up so big he couldn't walk. A man he knew came along and drove him to the hotel. They put him to bed and put a flaxseed poultice on his leg and made him drink a quart of whiskey. He was there two days before he could come home. He limped around the farm for a year or more".

"I didn't know that puff adders were poisonous", said the snake man.

"You better steer clear of them if you see 'em".

"The other day I was up at Dingman's Ferry looking around Thundercloud's souvenir shop. I asked Thundercloud if he had ever seen a hoop snake", said the snake man. "He told me that he never had and he never knew an Indian that had, either. He said only white men have seen them".

"Well, Thundercloud ain't lived in these parts as long as I have. I saw one all right and it nearly frightened me to death. I just got my milking done and was carrying the pail to the house—our barn was on the other side of the road. Just happened to look up the road and there about a quarter of a mile away was a hoop snake coming down at an awful rate, making clouds of dust as it rolled along. I dropped the pail and ran two miles to the Delaware post-office (that was before Egypt Mills had the post office) before stopping. I sat on the steps of a place there for a long time and then as the sun was going down fast I walked back slowly. I saw the milk pail where I had left it and when I looked there was the hoop snake all curled up in it. It had drunk all the milk. I was so mad I ran in the house, got my shot gun and gave it the two barrels. I measured it—it was nine feet, six inches long. My Father and I nailed it to the east side of the barn to tan it."

"What was its color", he was asked.

"It was blue, purple, red, orange and yellow on the top and white on the belly side, and it had a big horn, with a sharp point on the end".

"Where is the snake now?"

"I don't know. The next day when I went out to look at it—it was early and the haze was still on the mountains across the river—and it was gone. Some skunk, weasel or maybe an owl must have got it".

## THAT "SPLASH" WAS A SUCKER

Joseph Johnen, Jr., 10 years old, had been left to fish on French Creek by his mother and father, and promptly hooked a three pound Buffalo sucker measuring 18½ inches in length on the fly rod he was using.

Writes Joseph Johnen, Sr.:

"His landing this fish gave us (wife and me) as much of a scare as it did him a thrill, I suppose. We had been fishing together and he had asked permission to fish down the creek about 100 yards for rock bass near a large tree that had fallen into the creek. It wasn't long until I heard him call me and as I could not see him because of the tree, our first thought was that he had fallen off the high bank into the creek. When I looked down the creek, all I could see or hear was a splash. I started on a run and called and he answered, so that I knew he wasn't in the creek. The splash had been made by the sucker breaking water. When I got there he had the sucker on the bank."

The Johnens were camping at Mill Village on French Creek last summer when this incident occurred.

You say that if a millionaire  
Should happen to propose to you  
You'd turn him down for love of me  
You'd be that true?  
I'm sorry dear, this is the end;  
I hate to cause you pain  
But I can't love a woman who  
Admits that she's insane.



Larry Sullin, Beaver Meadows angler, tries his luck for trout in Big Bear Creek, Carbon county.



## A WORTHY OBJECTIVE

There may be a good many people in Western Canada who could not give the exact location of Kingsville, Ontario, but there are very few who have not heard or read about, and some who have visited, the institution for which Kingsville is famous—the bird sanctuary owned and operated by Jack Miner, the great friend of wild life and of children.

Even those who are only slightly familiar with the great work that is being done by Jack Miner to conserve bird life for the enjoyment of posterity and to promote love for and kindness to wild life among adults and children, will be more than glad to learn that efforts are being made, not only to preserve the sanctuary for all time to come, but to enlarge it and thus extend the scope of its usefulness by adding to the premises.

### Fame Is Widespread

The fame of Jack Miner's bird sanctuary has extended far beyond the boundaries of Canada, even beyond the confines of this continent. His conservation plans for the benefit of future generations are almost as well known in Europe as in Canada and the United States, and only two years ago he was approached by officials of the Government of Czechoslovakia for information and advice, as a result of which that country to-day has a chain of sanctuaries for bird life patterned after the Jack Miner sanctuary at Kingsville, Ontario. Indeed, his influence may be said to have spread around the world and his example is probably doing more to inspire conservation of bird life than that of any other man living.

Those who have visited the Miner sanctuary at Kingsville know well enough the great human value of his work and it does not take much reflection to realize that it also has a material economic valuation. Tourists from all countries of the world are drawn to his door and none depart without carrying away with them pleasant recollections of scenes of beauty and lessons on conservation to serve a lifetime.

### A Great Influence

A succinct summary of the value of the work of this pioneer bird bander is contained in the following tribute paid by Arthur Jensen, Game Warden for Essex County, Ontario, in a recent broadcast:

"In my opinion Jack Miner, the Canadian naturalist, and his bird sanctuary at Kingsville, Ontario, holds the same place in conservation as Mr. Henry Ford holds in the realm of industry. Jack Miner has been twenty years ahead. The sanctuary system of conservation and artificial feeding of bird life which he has preached from coast to coast for the last twenty-five years has been an example which hundreds of individuals have copied as well as State, Provincial and Federal governments, with the result thousands of birds are alive to-day, yes, perhaps millions, through Jack Miner's influence both directly and indirectly."

What Jack Miner has done in the past quarter of the century to preserve many species of game birds for the benefit of sportsmen of this and future generations, for the enjoyment of the lover of all that is beautiful in Nature and for the benefit of the tourist, and industry dependent upon the tourist, cannot be calculated in dollars and cents. His work is a memorial which will endure throughout the ages and

will be recorded in the pages of history, and the sanctuary itself is a memorial which should be preserved for the nation, for future generations, and as an attraction for visitors from other countries of the world.

### Aid Is Required

Although some assistance has been rendered by governments to Jack Miner's enterprise, unfortunately the work has been carried on at a pecuniary loss and the operation of the sanctuary is encumbered by a deficit of \$10,000. He, himself, has passed the allotted three score years and ten and there is no guarantee that the enterprise at Kingsville will or can be carried on after his demise unless some public-spirited individual or organization makes its perpetuation a financial possibility.

It is reported that an endowment of approximately a million dollars is required to ensure this happy consummation, with an additional \$250,000 to provide for an extension of the present crowded facilities.

### Would Ensure Perpetuity

An endowment to ensure the continuance of this work and the preservation of what amounts to an international monument would be more than a happy gesture for some such institution as the Rockefeller Foundation which, according to a compilation in an article in a recent issue of *Fortune* magazine, has already expended some twenty-seven millions of dollars creating national parks on the other side of the Canada-U. S. boundary.

In the expenditures he has already made for similar objectives, Mr. John D. Rockefeller, Jr., has given evidence of his realization of the

value of outdoor recreation for humanity and the endowment of such an institution as the Jack Miner bird sanctuary would not only constitute a fine gesture of international goodwill on his part or on the part of some other wealthy citizen of the United States, but would emphasize the international value of Mr. Miner's efforts for the whole of mankind.

*The above is an EDITORIAL Jan. 22, 1938. Published in the 200 weekly newspapers of Manitoba, Saskatchewan, Alberta and British Columbia. Serviced by the Winnipeg Newspaper Union. Head office:- 120 Wellington St. W. Toronto.*

## POTTER SPORTSMEN BACK VERMIN CONTROL

The quarterly meeting of the Potter County Sportsmen's Federation was held in the I. O. O. F. hall at Roulette, on Sunday afternoon, January 8th. Between thirty and forty persons were present representing the seven clubs of the county belonging to the County, Division, and State Federation of Sportsmen. The clubs affiliated with the Federation are as follows: Black Forest, Crandall Hill, Galetton, East Fork, Oswayo, Roulette, and Ulysses. The membership of the clubs for 1938 was 800. While it is rather early in the year to predict an increase in membership for 1939, yet the fact that the Crandall Hill Club has already enrolled 136 members for 1939, an increase of 88 members over 1938, would indicate that the membership for 1939 will exceed that of 1938.

During 1938 a vermin control contest was carried on among the various clubs of the county. The Oswayo Valley Club was declared the winner of the contest for 1938 and awarded a ten-dollar prize given by Judge Lewis for the purpose. A similar contest will be carried on during 1939 with a prize of ten dollars from Judge Lewis again being offered to the club killing the most vermin during the year.

As this is the time of year when resolutions are offered by the various clubs to be conveyed to the Division and State Federations by the official delegate the following resolutions were offered and adopted:

1. To permit hunting woodchucks later in the evening.
2. To make it unlawful to carry a high power rifle during the season after killing a deer or a bear.
3. To prohibit the use of 22 long, short, or long rifle in hunting bear or deer.
4. To place bounty on red fox in Potter County.
5. To have Game Commission pay keep of game law violators while in the county jail.
6. To have Game Commission carry on a program of cutting for winterfood in deer territory on State Forest land as well as on State Game land.
7. To change law to permit use of snares in hunting predators.
8. To change method of taking beaver by having all trapping done by employees of the Game Commission with money for skins turned over to Game fund for use in counties where beaver were taken.

L. L. Smith, of Roulette and C. A. Roberts, of Ulysses were reelected President and Secretary-Treasurer respectively for 1939.



This vividly marked rainbow trout, weighing 3 pounds one ounce, was taken in Lake Koon, Bedford county, by Ross Brown of Bedford.



## THE ART OF LYING

Appended to a poem on "The Art of Angling," which makes one of "A Collection of Scarce, Curious, and Valuable Pieces," collected by W. Ruddiman, from "the fugitive Productions of the most eminent Wits of the present Age," and published by him in 1773, is "An Introduction to the Art of Lying." The following is an illustration of the author's technique:

It requires no great skill to become master of it, and extends only to the marvellous. . . . I have known it practised with success by a friend of mine frequently, who has laughed, and been heartily laughed at, for the fruitfulness of his imagination. If you tell a story which happened in one county, he immediately repeats the same, with a trifling variation, that happened in another. If you carry it to the possible, he extends it to the probable; if you sink it to the improbable, he lowers it to the impossible; in short it is the art of refining epitomised.

Example: One said he saw a pike in a small pond in Kent, weighing 40 pounds, and that one of 30 pounds was taken out of its belly. My friend immediately replied, That was nothing; he had seen in Wiltshire one of 50 pounds weight, and a pike of 40 pounds taken out of its belly; and not only that, says he, but another entire pike was taken out of the belly of it, which weighed 27 pounds and a half. This was between the probable and possible.

The gentleman, finding himself outdone, replied, It was strange, but yet he had heard something beyond that; he had a friend of his in Northamptonshire, who stopped at a little public house, and called for a bottle of ale; it was set on the table, and, being ripe, forced out the cork, which went through the ceiling and roof of the house, and hit a small bird which was that instant flying along; the bird dropped perpendicularly down into the bottle, the cork followed plumb into the neck again, stopped the bottle and drowned the bird.

My friend very gravely replied, that was nothing; for he had heard his father say, that, by such an accident in Wiltshire, he caught a covey of partridges, consisting of eight brace and a half of birds, and at one blow, with this addition only, that it was a two quart bottle they fell into, &c.

## REEL DOPE FOR BAIT CASTERS

Practically every fisherman has at some time or another during his career experienced a reel breakdown. Right now I will wager you have a reel somewhere among your duffle that due to a broken or worn part has been cast aside. Possibly the appeal of new tackle is partly responsible, on the other hand it may be too much bother to pack it up and return it to the factory for repairs, comments Bob Glover in his column "Let's Go Fishing" in the *Allentown Chronicle and News*, Allentown.

This has been a personal experience, in fact I have discarded several reels that a few cents would have put in working order and as a fellow does not wish to use good reels for any kind of fishing there is no doubt that these



Opening day catch of brown trout 20 to 24 inches, from Lake Wallenpaupack. Caught by Mr. and Mrs. Seymour Batdorf and Mr. Dubbs of Lancaster.

## A DEER "USES HER HEAD"

By E. E. Watson

SOME time ago, while fishing in Indian Creek, in Missouri, there came a series of hard rains, almost cloudbursts. We were camped on high ground, so it did not wash us away. The water in the usually small stream rose very fast. Between downpours I went to the creek to see if a small island was yet flooded. This little island was about the middle of the stream, the latter now being a deep, raging torrent.

During some other flood a large log, with its branches, had lodged against a tree, some three feet above the rocky island. I noted that the water was now almost up to the top of this log. But what was so surprising to me was that a large doe was standing on the solid island with her hind feet, while her front feet were on the log. What was still more surprising, she had managed in some manner to get her little fawn up on the log, and was steadying it with her head. The baby did not appear to be more than two or three days old, for it was very wobbly. I felt pity for both animals as I knew that the water would go at least two feet higher before it stopped rising.

The current was not so wide nor so swift on the other side of the island, but I could see no way to save even the fawn, though I felt the doe would be able to swim out, were it not for her baby.

None of us could have made it half way to the submerged island from our side. The others came down to me at my call. We could watch but we could not help. That mother deer had not given up—far from it.

The island and the tree on it had formed a sort of eddy so that the current was far less swift there. When it evidently became apparent to the mother that the water would continue to rise, especially when a new downpour started, she deliberately pushed the fawn off the log and, before it could sink or float down stream, secured a firm hold on the loose skin along its back with her teeth and struck out, swimming and holding the fawn in such position that its head was above water, for the opposite shore.

And she made it, too. She carried the baby clear up to the rocky shore and even helped it along to the timber, for it was, seemingly, too wobbly to walk. THAT was intelligence plus mother love, and we were thrilled at the sight! —Our Dumb Animals.

discarded reels can and will be used if their owners would just take the time to have them fixed.

Wrapping and posting is a task that few people enjoy, but unless you know the name of the part needed and are mechanically inclined this procedure is almost necessary.

*To overcome the first deficiency this writer has obtained a price and descriptive list of reel parts from a well known tackle company. It was my intention to make the names and functions of the various parts known to you thru this column but after looking the booklet over I came to the conclusion that illustrations are almost a necessity. This much I can do however, I have the booklet and if anyone has a reel that a new part will put back in working order but is at a loss as to how the part should be*

*ordered give me a call and I will be glad to lend a hand.*

While we are on the subject of reels I came across an item appearing in a recent sports publication that is interesting and at the same time gives rise to an emphatic "So What." It does however give a fellow a rough idea of the work a hard used reel actually does.

Charles W. Patterson of Cleveland has estimated that in one year's fishing and tournament work his reel has functioned thru 115,000 casts averaging 80 feet each, meaning his plug has traveled 9,200,000 feet out and the same distance back or a total of 3,484.8 miles. At the same time the handle turned 18,400,000 times, the spool making 65,933,000 revolutions and the level winding arm and block traveling 2,200,000 across the face of the reel.





A mighty nice catch of pickerel was made in Pine Creek, Schuylkill county, on September 28, by H. C. Romberger, Mandata merchant, who caught his limit of pickerel.

The suckers in Bald Eagle Creek, Centre county, were biting well early in January, according to word received from Warden Dave Dahlgren, of Philipsburg. James R. Taylor, of Tyrone, caught 8 fine suckers on January 2, that ranged in length from 12 to 16 inches. Six suckers, ranging in length from 10 to 14 inches, were caught by E. Sweitzer, also of Tyrone.

A fine largemouth bass was taken in North Jersey Lake at Goldsboro, by Thomas McBride, of East Mauch Chunk, according to word received from Ralph Lennon, special warden, also of East Mauch Chunk, Carbon county. The big fellow weighed 5 pounds 4 ounces.

According to word received from Warden H. P. Custard, of East Stroudsburg, waters in the Pocono region provided some excellent catches of big bass and pickerel during the 1938 season. He listed as outstanding lakes producing good catches Stillwater Lake, Naomie Lake and Lake Nephewin or Brown's Lake.

November fishing for walleyed pike was great last year, some of the reports we have been receiving would indicate. Here's a fine report from Russell Tomlinson, of Mansfield: On November 20, while fishing with Dr. William Jaquish on the North Branch of the Susquehanna River at Meshoppen Creek, he writes, we caught 10 walleyed pike on minnows and plugs. They hit the bait they got to first. I had one take a plug when it was reeled in to the end of my rod. These fish measured 23 inches, 24 inches, 22½ inches, 20 inches, 16 inches, 17¼ inches, 16½ inches, 19 inches, 14½ inches and 15¾ inches and had a total weight of 22½ pounds.

Tomlinson believes in fishing for sport primarily. Last season, he caught twenty-one brook trout, killed 7, sixty brown trout, killed 31, thirty-two rainbow trout, killed 11, fourteen black bass, killed 8, twelve calico bass, all retained, six rock bass, killed two, and six walleyed pike, all retained.

The Brokenstraw Creek in Warren county produced some nice catches of trout and bass last year. William Prine of Corry, scored in

## HERE AND THERE IN ANGLERDOM

the Brokenstraw during the trout season with a 17½ inch rainbow trout weighing two pounds nine ounces. The same stream yielded a smallmouth bass for his creel that measured 18 inches in length and weighed three pounds two ounces.

Will a barbless hook serve as well in landing fish as one with a barb? Apparently, Bob Shawkey, of Warren, one of the outstanding conservationists and fishermen in the state, has a record strongly backing the pros in the argument. Fishing only with barbless hooks during the trout and bass seasons in 1936, he landed 76 trout, of which he killed six, and, get this, 790 bass, killing three.



Deputy Game Protector Samuel Coons and Howard Calvin Pletcher made a catch of 25 suckers weighing 21 pounds in Bald Eagle creek, Centre county, in one hour and 30 minutes.

Word received from Dr. I. G. Doak, of Altoona, by Commissioner of Fisheries, C. A. French, indicates that the record smallmouth reported to date in 1938 has been topped. Wrote Dr. Doak: "I want to report to you a fish which I caught on October 14, 1938. While fishing in the Juniata River on the above date, I caught a smallmouth bass measuring 21 inches in length, 15 inches in girth, and weighing five and one-half pounds. The fish was caught in the river near McVeytown, Mifflin county."

A struggle between a 30 inch watersnake and a 9 inch brook trout was witnessed last trout season by Wood Weimer, Waterford fisherman, and Charles McLean, Ligonier police officer. The brookie, according to the witnesses, put up a game battle, managing several



times to regain the water after the snake had pulled it ashore. Finally, McClean and Weimer took a hand when the tide was apparently going too strongly against the fish. Only slightly marked, the charr was returned to the water in Denton Run and there's one snake less for it to evade in the future.

Towanda fly fishermen, as usual last year, scored with some mighty fine smallmouth bass in the North Branch of the Susquehanna River. Miles Conrad, of Towanda, landed a smallmouth at Rocky Rifts measuring 19 inches in length and weighing 3 pounds 12 ounces. A 17½ inch smallmouth caught by Leroy Robbins, of Towanda, tipped the scales at 2 pounds 9 ounces.

A 20 inch pickerel weighing three pounds and a bullhead catfish comprised the catch of Harry Warner, 9 years old, of Reeders, in Trout Lake Pond, Monroe county, one day last season, according to Warden Harry P. Custard.

The Susquehanna River in the vicinity of Speeceville is favorite fishing water with many Harrisburg anglers. Fishing in that section on September 10, Joseph Starr, veteran Harrisburg fisherman and John Collier of near Marysville scored a catch of five fine smallmouth bass apiece. Starr's catch ranged in size from 11 to 15 inches.

Not only are Berks county fishermen ardent devotees of the rod and line, but many of them are actively engaged in bettering the sport in the county. A notable example of their drive for better fishing is the work now being accomplished by the Birdsboro Sportsmen's Club. In cooperation with the Fish Commission, the club is operating two trout rearing ponds near Birdsboro. Thousands of fingerling trout are now being brought to legal size in these ponds. Officers of this live-wire sportsmen's association are Joseph Hunsinger, President, Daniel Swavely, Vice-President, Clifton W. Sands, Treasurer, Walter H. Lord, Secretary, and Earl Warden, S. Paul Bernard and Jack North, Directors.

Writes Warden Leland Cloos, of Middlebury Center, Tioga county:

On Tuesday evening, October 25, a group of sportsmen gathered at the United Mine Workers Building, in Morris Run, for the purpose of reorganizing the sportsmen's club in that town. Forty-five sportsmen were present and the evening was spent in discussing various conservation subjects. The following officers were elected: President, Edward Jenkins, and Secretary, Tom Sterling, both of Morris Run



# BOARD OF FISH COMMISSIONERS

## FISH FUND—Calendar Year 1938

Balance January 1, 1938 . . . . . \$ 475,139.03

### Receipts

Fish Fines . . . . .	\$ 12,791.60	
Commercial Hatchery Licenses . . . . .	895.00	
Motor Boat Fines . . . . .	190.00	
Lake Erie Licenses . . . . .	2,630.00	
Non-Resident Fishing Licenses . . . . .	15,698.60	
Interest . . . . .	3,188.81	
Motor Boat Licenses . . . . .	9,313.25	
Resident Fishing Licenses . . . . .	593,571.40	
Tourists Fishing Licenses . . . . .	4,207.55	
Contributions for Restocking streams . . . . .	9,350.00	
Sale of Publications . . . . .	3,707.28	
Eel Chute Licenses . . . . .	159.00	
Sale Unserviceable Property . . . . .	324.08	
Seine Licenses (Tidewater) . . . . .	10.00	
Miscellaneous . . . . .	836.25	656,872.82

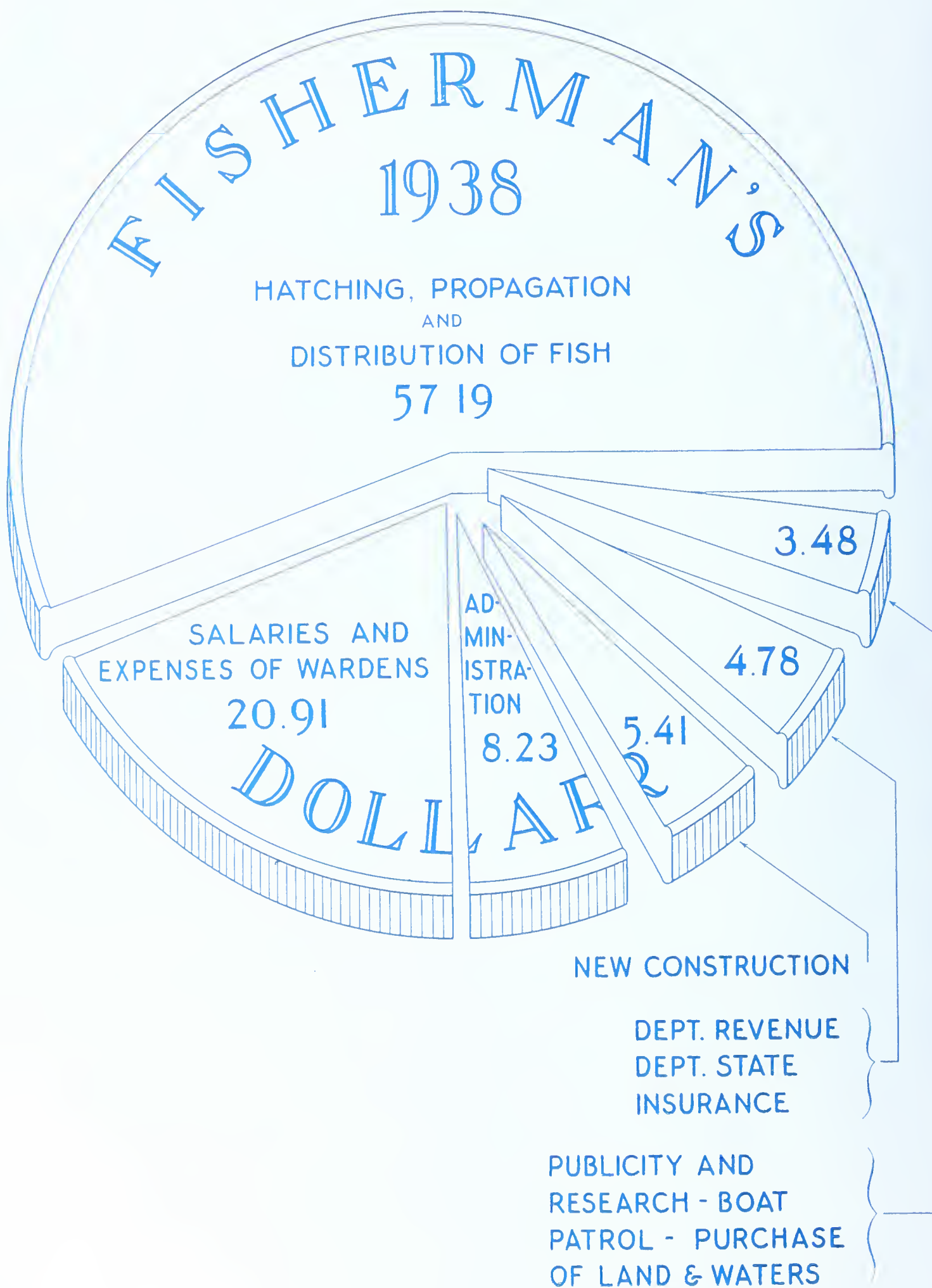
Total Funds Available . . . . . \$1,132,011.85

### Expenditures

Administration . . . . .	39,757.95	
(Salaries, Wages, Travel, Etc.)		
Protection . . . . .	101,085.34	
(Salaries & Expenses of Wardens)		
Hatching Service . . . . .	276,415.42	
(Hatching, Propagating & Distributing Fish)		
New Construction & Repairs . . . . .	26,162.25	
By Revenue Department . . . . .	16,582.84	
(Printing, Fishing Licenses, Salaries, Etc.)		
Insurance . . . . .	2,673.36	
Publicity & Research . . . . .	16,785.36	
Boat Patrol (Lake Erie) . . . . .	60.71	
By State Treasury Department . . . . .	3,825.00	483,348.23
(Employees Retirement Fund)		

Balance January 1, 1939 . . . . . \$ 648,663.62







# PENNSYLVANIA ANGLER



ANNUAL TROUT NUMBER



MARCH 1939

BROOK TROUT

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BOARD OF FISH COMMISSIONERS



CHARLES A. FRENCH  
Commissioner of Fisheries

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# PENNSYLVANIA ANGLER

Vol. 8 No. 3

ANNUAL TROUT NUMBER

MARCH, 1939

## EDITORIAL

### TROUT STOCKING

TO THE anglers of Pennsylvania, the recreation they enjoy in the art of fishing becomes an integral part of their existence and the conservation of fish life becomes a serious business to them. Their recreation consists of the enjoyment derived by being in the great out-doors, along the picturesque streams or lakes, and harvesting the fish crop of the waters by angling for the many varieties of game fish found within our borders. The business end and likewise a keen pleasure to them consists of conserving and restoring the fish crop for future needs. Following each annual harvest the next season crop must be protected and in many cases restored. The keen interest the fishermen take in the business of restoring and protecting our aquatic resources is plainly demonstrated by the interest shown at the many sportsmen's gatherings throughout the State and the numerous inquiries received by this Board in reference to its work.

In providing angling for trout under present-day conditions, it is largely a business of restoring the crop after each annual harvest, and replanting the areas with large-sized fish. From the business angle of aquatic conservation, the fishermen should be familiar with what is required to annually reseed the trout waters of Pennsylvania, and when a tank load of big trout is planted in your favorite stream, impress upon others that they represent a cash value, paid for by all licensed anglers. Another vital point of business in the annual trout distribution program is to discourage the ever-constant demands to plant this valuable crop in undesirable waters, and to discourage the over-stocking of second and third class streams. In other words the planting of trout in a stream over and above the carrying capacity is poor business and a waste of your investment.

During the calendar year 1938 the Board of Fish Commissioners stocked in the waters of Pennsylvania approximately 174 tons of brook trout, brown trout and rainbow trout. Most of the fish were grown at the Corry, Reynoldsdale, Huntsdale and Bellefonte Hatcheries. The cost of producing agricultural crops varies considerably in different localities, likewise the amount of food required and the cost to grow a pound of trout varies to some extent at the different hatcheries. This difference is due partly to the temperature and chemical analysis of the waters used, and possibly other factors which the Board, to date, has not been able to determine. Following is the record for the various hatcheries for 1937. (The report for 1938 is not as yet entirely completed).

Hatchery	Cost of Production	Cost Per Lb. of Trout	Food Required to Produce 1 Lb. of Trout
Bellefonte .....	\$87,105.77	.592	4.06 lb.
Corry .....	26,875.55	.673	3.99 lb.
Huntsdale .....	18,692.06	.379	2.13 lb.
Reynoldsdale .....	34,498.37	.495	4.18 lb.

It required an average of 3.59 pounds of food to produce a pound at an average cost of approximately 53c per pound for trout planted in the streams. The cost represents all expenditures in connection with the operation of the hatcheries including supervision, distribution and maintenance, excepting interest on investment and new construction. It must also be taken into consideration that the Board of Fish Commissioners pays no tax on its properties.

Possibly a one year record of the cost of producing trout at a hatchery is not entirely fair to the institution, as the cost per pound at the same plant varies considerably from year to year. For example, there is listed below the record of the Bellefonte hatchery over a six year period:

Year	Cost Per Lb. of Trout	Food Required to Produce One Lb. of Trout
1933 .....	\$0.563	4.4 lb.
1934 .....	0.499	3.4 lb.
1935 .....	0.493	2.9 lb.
1936 .....	0.846	5.5 lb.
1937 .....	0.592	4.0 lb.
1938 .....	0.48	4.5 lb.
Average .....	0.578	4.1 lb.

The Board of Fish Commissioners has a planting program so that this valuable crop is systematically stocked in the major approved trout waters of the State, where the fish have a chance of surviving low water periods and other unfavorable conditions.

So that the greater mass may enjoy the benefit of the restocked fish we are asking that you help to shoulder the responsibility of systematic stocking and discourage the requests for fish for questionable areas.

*C. A. French*  
Commissioner of Fisheries



# MAYFLY NYMPHS

By CHAS. M. WETZEL

**P**RACTICALLY all trout streams have an abundance of mayfly nymphs, yet the majority of fly fishermen have only a hazy knowledge of these creatures. To illustrate the point, I have had a number of requests from various readers of the ANGLER as to where the natural nymphs can be found; what they look like; how they are colored—together with a lot of other questions which were of too detailed a character to be treated amply by letter. In this article I shall endeavor to clear up some of these phases.

To get at the root of the problem, one should first consider the stream, as certain stretches of it harbor a population of nymphs distinctly their own. I have in mind a certain creek that rises high up in the mountains, rushing turbulently along until it reaches the lowlands; then it loses its pace and meanders slowly over a muddy bottom, sprinkled here and there with large patches of water weeds.

In the rapid part of the water, three distinct types of mayfly nymphs occur. First, those that cling to the underside of stones; second, those that range freely about the stream bed; and third, those that inhabit the trash, leaf drifts, and the muck and sand in eddies.

Those in the first group are the ones that are most familiar to anglers since this is the common place to look for them. The bodies of these nymphs are flat; their legs—usually speckled with dots and bands—are depressed and held akimbo and their plate-like gills are pressed to the stones to form a suction which better enables the nymph to retain its hold. The majority of these nymphs are protectively colored, grey or brownish black on the dorsal side and whitish underneath. The head is strongly depressed; the tails, wide spreading; and the eyes are dorsal in position.

When one picks up a stone in the stream bed, these nymphs are so firmly pressed to the underside that one can hardly notice them until they begin scuttling for a hiding place. Some of them walk backward as easily as forward—their main object is to hide in some crevice on the underside, away from the light. Because this type of nymph is more familiar to most anglers, it does not prove it to be the most common or that trout like it best—for due to its secretive habits, it is reasonable to assume that fish do not feed on many of its kind except at the time when they rise to the surface to transform into the winged fly.

Most of these stone loving forms belong to the family *Heptageniidae*, which numbers among its adult members such common trout flies as the Yellow May Dun, Ginger Quill, March Brown and the Great Red Spinner.

The nymphs in the second group are probably more sought after by trout than all others, yet they are most elusive and extremely difficult to capture.

They are not flat like the stone dwellers, but have high heads, streamlined bodies, and some like *Isonychia*, "The White Gloved Howdy", have heavily fringed tails. By placing a glass bottomed bucket beneath a swift riffle, one can often see these nymphs dashing here and there, some holding fast to the stones

with their feet, their heads always upstream and their bodies swaying with the current. The eyes of these nymphs are on the sides of the head, which places them among the family *Baetidae*.

Among the adult flies in this group are the Iron Blue Duns and the White Gloved Howdy, the latter a reddish brown mayfly, conspicuous by its white front feet. I have raised the Iron Blue from nymph to adult and discovered that it was almost the exact duplicate of the English mayfly—that is, when viewed by the average angler. Two days after this insect affected its metamorphosis to the winged stage, it cast another skin, and then appeared as the imago or as fishermen generally know it, the Jenny Spinner. After this transformation, the wings lost their dark slate blue color, due to the shedding of the sub-imago skin, and the body segments—white in the center, tipped with reddish brown near the tail and thorax—were characteristic of the Jenny Spinner or the final phase of the Iron Blue Dun.

The nymphs in the third group are more or less spiny forms. On the upstream face of old beaver dams or wherever leaf drifts occur, they appear in abundance. Other favorite hiding places are the small eddies that harbor an accumulation of moss, silt and sand.

In such shallow spots, trout can often be seen busily engaged in trying to dislodge the nymphs from their hiding places. While so employed, the fish appears to be standing on its head—that is, after rooting around with its nose, the trout rises and hovers over the spot in a vertical position, its tail quite frequently protruding above the water. A fish so employed can rarely be taken on a dry fly, yet it will fall an easy victim to almost any sunken artificial nymph. Among the adult flies recognized by anglers in this group are the Golden Spinners or Golden Drakes. The nymph of this fly resembles the next group under discussion only it is dark purplish brown and protectively colored.

Now, in the quiet or still waters, three other types of mayfly nymphs appear. Fourth, those that burrow in the mud, sand and gravel; fifth, those that climb among the weeds; and sixth, those that sprawl upon the bottom.

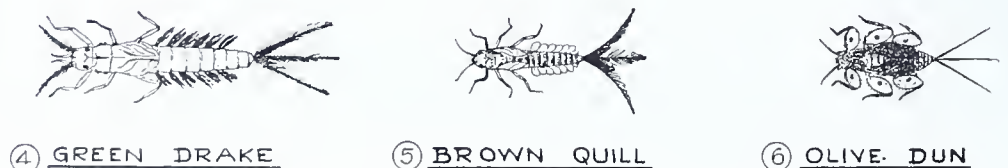
The nymphs in the fourth group belong to the family *Ephemeridae*. This was the name formerly given to the order of mayflies but it has recently been changed. Among the adult flies in this group are the Brown Drakes, Black Drakes, Grey Drakes, Yellow Drakes and the Green Drakes or Shad flies. In my collection all of the above flies are well represented in both nymph and adult stages. In fact, I might add, that this statement applies to all the flies and nymphs discussed in this article.

Burrowing nymphs are peculiar in having narrow heads, hairy gills, digging front feet and tusked mandibles, the latter which are visible from above. These mandibles or "pinchers" are characteristic of the burrowers and offer a simple means of identification; their purpose is to loosen and lift up the mud, so that the nymph can more readily spread it apart with its legs, while excavating its burrow. During low clear water, these burrows or tunnels can often be noticed on the stream bed; they remind one of the traces left by a worm after it has crawled over the bottom. Not only are these tunnels in the bottom, but certain species make U-shaped burrows in the banks of the stream. Probably the majority of the excavating nymphs are found in the sand and gravel at least two feet below the surface of the water.

Like the stone-loving nymphs, the burrowers are in hiding most of the time, yet trout eagerly search them out. How they catch them it is difficult to say, yet they form a large portion of the trout's food. Last spring on Fishing Creek, while killing a rather large fish, it disgorged at least a dozen. All of these nymphs were pale whitish yellow and had the characteristic mandibles of the burrowers, yet their wing



MAYFLY NYMPHS - FAST WATER DWELLERS



MAYFLY NYMPHS - SLOW WATER DWELLERS



heads were not black—a reliable indication that they were not rising to transform into the winged fly.

The nymphs in the fifth group are similar in appearance to those in group two. Not only are they found among the weeds, but certain species range quite freely about the stream bed, darting here and there with the swiftness and sureness of a minnow. In this respect, they are assisted by their fringed tails, which serve as a powerful tail fin. I have raised one of these nymphs, i.e.; *Siphonurus nebecensis*—a rather common fly of wide distribution—to the adult stage. The sub-imago is known among fishermen as the "Little Brown Dun", and the female imago or spinner, known as the Brown Quill, is characterized by the conspicuous green ball of eggs clinging to the tip of her abdomen.

In the sixth group, the nymphs that sprawl upon the bottom are generally small and so entrusted with silt that one seldom notices them. In form they are rather flat; their legs and bodies are covered with fine hair and they have thinly fringed tails. They seldom wander about and for the most part lie motionless upon the bottom relying on their silt covered bodies to escape observation from fish and other enemies.

Among the adult flies in this group are the Olive Duns and the small whitish two-winged mayflies, known among fishermen as the Little White Curses. The nymph pictured in the lower right hand corner is *Ephemerella fusata* and it develops into an Olive Dun, very similar in appearance to the famed English Blue Winged Olive—or, as it is commonly known, the B. W. O. This nymph is conspicuous by its shield shaped back and the wide flaring thighs or femurs. The hairs on its legs are plainly visible without the aid of a magnifying glass. The "Curses" belong to the genus *Caenis* and are seldom encountered over the water until after dark; then they appear, flying in small compact swarms; and, should you be in their vicinity, they have no hesitation at all in alighting on your hands, face and clothing, while ridding themselves of the sub-imago skin.

Among adult nymphs, the smallest (*Caenis*) are roughly about an eighth of an inch long, while the largest (*Hexagenia*) attain a length of around an inch and a quarter. Frankly, when tying up your artificials, there is no need of going to any of these extremes.

Some species take two years or more to complete their life cycle; therefore, it is more or less obvious that throughout the fishing season, numerous half-grown nymphs are foraging around and mingling with those arriving at maturity. Similarly, other species have a short life cycle and are the progenitors of a number of broods each season. It follows then, that at about any time, one can find the same species in various sizes and stages of development. Knowing this to be true, no real advantage can be claimed for an artificial that conforms exactly in size with its mature prototype, except possibly at such times when the adult nymphs are ascending to the surface to transform into the winged fly.

During the growth of a nymph, moulting frequently occurs. The thin skin with which the nymph is clothed splits on the thorax, and the nymph crawls out of it and grows a new skin of larger size. On emerging from the old skin, most of the nymphs are white, soft and transparent, and artificials representing this stage are usually successful.

Hard shell artificial nymphs with lacquered bodies have an advantage over those constructed of fur, in that the underside can be painted a lighter color than the back; but trout are quick to sense the deception and do not retain them in their mouths nearly as long as the softer variety.

So much has been written about nymph fishing that I hesitate to add anything more. I have found that what is most required is keenness of perception, for trout seize and spit out the artificial before you are aware of it. For your first venture at this fascinating type of angling, I would suggest a calm slow moving stream as in such waters your sense in striking will be quickly and sharply developed.

I have never found it necessary to use leaders longer than nine feet in length. In the early part of the season before the natural fly is on the wing, the leader should be weighted either by lead wire, or split shot, so that the nymph can be worked close over the bottom. Vary the method of retrieve, for different species of nymphs have means of locomotion distinctly their own. At times drag the nymph over the bottom—you will get fast quite often—but make a habit of striking at the slightest provocation. Sometime you will be agreeably surprised by being fast to a good trout.

Later on, when the weather grows warmer and the nymphs are rising to the surface to transform into the winged fly, the method of procedure should be somewhat altered. Allow the current to carry the fly downstream, yet all the while keep working it upwards towards the top of the water. Trout, as a rule, follow its downstream journey and oftentimes seize it just at the surface when the artificial is being lifted off the water for the next cast.

Trout feed on nymphs the year round, so be constantly experimenting, as there is much to be learned in this type of fishing. Unlike dry fly fishing, you need not wait for the natural fly to be abroad, but can venture forth with strong hope of success even in the coldest snow water.

A few words concerning the later stage of the shad fly nymph might prove of interest. In "Native Trout Flies" which appeared in the August, 1934, issue of the ANGLER, I first described this fly and in that article I mentioned that the natives along Penns Creek called the sub-imago the Green Drake or Shad fly. This name was indiscriminately given to all the large green mayflies along the stream; but observation and further study has convinced me that two different and distinct species occur, namely *Hexagenia recurvata*, and *Ephemerella guttulata*. Both appear on Penns Creek about the same time.

Last spring, May 18 and 19, I fished Weiker Run, also Penns Creek in the vicinity of the Paddy Mountain tunnel, and on both of these streams the green drakes were just beginning to appear over the water. They had not been over the surface sufficiently long for the trout to take them with their customary reckless abandon, but even so, I succeeded in securing a few nice fish on the artificial green drake. The fly on the water at this time was *Hexagenia recurvata*, *Ephemerella guttulata* having as yet not appeared.

*H. recurvata* has two tails; its wings are somewhat darker than *E. guttulata* and are lightly sprinkled with brownish patches. I secured a number of live sub-imagos but due to the heat, the close quarters in which they were confined, and the long distance over which

they were transported—the majority of them died in transit. However, I was successful in raising one of them—a male—to maturity. After the casting of the sub-imago skin, the tails extended to almost twice their original length; the wings became a sparkling rich red brown; and the body segments were almost of the same color. Having the male, I was quickly able to identify the fly as *H. recurvata*. Although I have quite often encountered the Brown Drake, I had never realized before that it was the metamorphosis of the Green Drake.

On Friday the 20th, I drove over to Spring Creek and before starting to fish at the project, I dropped in at the administration building to call on my old friends, "Jake" Kniseley and "Art" Snyder. Jake informed me that the shad fly was just beginning to appear over the water, and that he had secured a number for me in a vial which I had left with him the week before. From their blotched wings it was apparent that these flies were an *Ephemerella* species, similar to, but considerably larger than *Ephemerella guttulata*, a fly found on both the Middle Creek and Penns Creek. Very few of these flies were emerging from the water in the project, mainly on account of the toll taken by the large trout in this heavily stocked stream; but downstream below the wire fence, I secured quite a number of sub-imagos that were clinging to the underside of grass that projected above the water.

Unable to identify the fly and having strong suspicions that it was an undescribed *Ephemerella* species, I submitted it to Dr. McDunnough, the Canadian entomologist, and a specialist in the mayfly group. To quote his letter: "There is a strong possibility that this is an undescribed species, and I only hope that you can secure adults for me."

To make a long story short, and after considerable correspondence together with forwarding of additional material, kindly furnished by G. R. McGough, of Altoona, and my good friend, Jake Kniseley—the fly was finally pronounced *Ephemerella guttulata*. Dr. McDunnough advised that this opinion was shared by Dr. Speith who was visiting him at the time—therefore it must be accepted. Yet it is curious that on Spring Creek this fly is so much larger than the same species found on Middle Creek, Penns Creek and Manada Creek. Bob McCafferty by the way sent me insects from the latter stream.

*Ephemerella guttulata* has three tails; its light green wings are blotched with brown; the tergites or back abdominal segments are of a chocolate brown, while the sternites underneath are of a pale yellow. The male is considerably smaller than the female and in the imago, or spinner stage, he is known as the Black Drake, mainly on account of his blackish wings. The female imago or spinner is known as the Grey Drake; her wings are pale yellow and more lightly blotched, while her body segments, as in the male, are of a milky white color.

But returning to Spring Creek. Anticipating a heavy hatch of the shad flies towards evening, I spent the best part of the day casting to a trout of unusually heavy girth, which I had earlier lost on a Green Drake near the big rock at the lower end of the project.

Here and there Green Drakes were emerging from the water, always looking as if about to alight, but ever mounting higher and higher, until they were finally lost in the tree tops. Knowing that the fly was on for two days al-

(Turn to Page 18)



# TROUTING TRIPS

## How To Reach Some of Pennsylvania's Outstanding Trout Waters

WITH the "trout fever" epidemic assuming major proportions at this season of the year, the Fish Commission is usually flooded with requests from ardent fishermen for information on "how to reach" some of our better known trout streams. In this article, the ANGLER presents for your consideration major trout streams in three outstanding fishing areas of Pennsylvania, the North Tier counties, the North Central counties and the Northeastern counties.

### Streams of the North Tier

If you crave the solitude of quiet mountain meadows and pine studded gorges, trout waters in Tioga and Potter counties may prove just the ticket.

**Big Pine Creek.** Heavy trout water, one of the largest trout streams in Pennsylvania. High water in early season makes fishing it below Galeton questionable. However, Galeton in Potter county is a good central point for angling in this area. It may be reached over Highway Routes 15 and 6 from Williamsport, turning from Route 15 to 6 above Covington. Stream smaller from Galeton to Walton, where the stream branches, one branch being known as Nine Mile Run, the other Cushing Creek. Good early season trout fishing in these waters. Highway Route 449 follows Cushing Creek entire length of stream. To reach Nine Mile Run, take Route 6.

**Pine Creek, West Branch.** Enters Big Pine at Galeton. Offers 16 miles of good trout water. Eleven miles accessible by road from Galeton. Good CCC trail then follows stream to headwaters.

**Lyman Run.** Another good Potter county stream accessible by road from Galeton for a distance of seven miles.

**Kettle Creek.** Famous North Tier stream that inspired that angling masterpiece, "Song of the Kettle." May be reached from Galeton over Routes 144 and 44 at Oleona and Cross Fork or over Route 873 from Renovo, Clinton county. Offers 30 miles of good trout fishing in major stream and has some fine tributary waters, particularly Cross Fork Creek and Germania Branch.

**Hammersley Fork.** Regarded as one of the best trout waters in Potter county. May be reached over Route 873 from either Cross Fork or Renovo. Fifteen miles long.

**Sinnemahoning, East Fork.** Fifteen miles of trout water, accessible by road from either Conrad or Wharton.

**Upper Allegheny River,** accessible by road from Coudersport. Good brown trout fishing.

Streams in Tioga county offer fine trout possibilities. We list the following.

**Big Pine Creek.** Thirteen miles of heavy trout water from Ansonia on Highway Route 6 to the Potter county line.

**Phoenix Run.** Crosses Highway Route 6 at a point two miles below Galeton. Good brook trout fishing.

**Long Run.** A good brook trout stream. Route 6 crosses Long Run at Gaines.

**Asaph Run.** One of the best smaller trout waters in Tioga county. Tributary to Marsh Creek at Asaph, eight miles from Wellsboro,



The Little Loyalsock Creek in Sullivan county ranks as excellent brown trout water.

county seat of Tioga. Wellsboro is on Highway Route 6.

**Cedar Run.** One of the best trout streams in the North Tier. (This stream is under special regulations, appearing in this issue.) Accessible at Cedar Run, Lycoming county, on Route 893.

**Four Mile Run.** Picturesque brook trout water. May be reached from Rexford on Route 6 over a new forest road.



Kettle Creek at Leidy, famous Clinton county trout water.

### North Central Waters

Of the streams in this area, we shall first list those in Lycoming county.

**Loyalsock Creek.** One of the largest trout streams in Pennsylvania. Fifty miles in length. Highway Route 115 leaving route 111 at Montoursville and connecting with Route 220 at Dushore follows the stream much of the way. Because of its size, however, this stream usually furnishes better fishing later in the season.

**Little Loyalsock.** A fine brown trout stream. May be reached at the headwaters at Dushore on Route 220.

**Lycoming Creek.** Another big Lycoming county trout stream. Follow Highway Route 111 from Williamsport turning to Route 14 at Trout Run and following this Route to Roaring Branch.

Trout streams in Clinton county rank with the best.

**Fishing Creek.** Has a stream length of 38 miles. Excellent brown and rainbow trout water, with some brook trout to be taken above Lamar. May be reached over Highway Route 220.

**Young Woman's Creek.** (See special regulations governing the Right Hand Branch of this stream in this issue). Accessible by auto over Highway Route 120 and at headwaters from the old Coudersport Pike.

Union county trout waters offer real variety for the fisherman.

**Penn's Creek.** One of the largest trout streams in the state. Brown trout predominate. May be reached by train from Lewisburg at Weikert and Cherry Run. Accessible by auto over highway Routes 45 and 888, leaving Route 45 at Laurelton State Village, follow Route 888 to Laurelton, Weikert and Cherry Run. You may also turn from Route 45 at Woodward, taking the road leading to Coburn and then turning to another road leading to Ingleby. Fishing good above and below Coburn.

**Laurel Run,** another excellent trout stream. May be reached by auto by taking Route 45 at



Mifflinburg and driving to Laurelton or by railroad over the Lewisburg and Tyrone Railroad to Rutherton.

**Buffalo Creek.** A good trout stream with several fine tributaries, the North Branch, Rapid Run and Spruce Run. The main stream can be reached over Highway Route 45 by way of Mifflinburg. The North Branch can be reached by auto by way of Mifflinburg and Buffalo Mills. Rapid Run parallels Route 95 over its entire length and can be reached by way of Mifflinburg and Forest Hill. To reach Spruce Run go by way of Mazeppa and Sun Rise Church or Schoolhouse from Mifflinburg.

**White Deer Creek.** Take Highway Route 14 to Watsonstown then follow Route 975 to White Deer postoffice. Information as to the better fishing water may be obtained at this point.

Centre county trout waters annually produce some of the largest trout taken in the state. Following are some of the outstanding streams.

**Spring Creek.** Fed chiefly by giant limestone springs, this stream ranks as a favorite with thousands of Pennsylvania fishermen. To fish it drive to Bellefonte which is nearly at the geographic center of the state. A road follows the stream for a distance of about four miles above Bellefonte. Its upper waters are accessible at Lemont on Route 45 to State College.

**Black Moshannon.** Another Centre county favorite, 26 miles long. Has its point of juncture with the Big Moshannon (polluted) where Highway Route 53 crosses the larger stream. Good tributaries to this stream are Myers Run, Halls Run, Benners Run and Rock Run. The Black Moshannon is accessible by auto over Route 53 from Philipsburg, Centre county, by traveling northeast to the Moshannon Mountain for a distance of about 16 miles. Can also be reached at the Red Bridge or at Gordon by leaving Route 53 at Moshannon and turning left at the crossroad running west from Snowshoe.

**Six Mile Run.** This mountain stream offers about 12 miles of good trout water in its course. Good tributaries, Hutton Run and Corbin Run. Accessible from Philipsburg by following the Rattlesnake Pike eastward, or from Port Matilda on Route 5, turning right at the top of the mountain and taking the CCC road into camp 119 at the headwaters. Can also be



Long Run ranks as one of Tioga county's best brook and brown trout streams.

reached from Winburne or Munson on the Munson Pike, crossing the stream at the mouth.

**Elk Creek.** A fast water stream ideal for fly fishing. Take Route 45 to Millheim, turning to Route 445 in Millheim, which follows the stream.

**Bald Eagle Creek.** A fine big trout stream. Take Route 220 from Bellefonte to Milesburg, turning in Milesburg to Route 64, thence to Howard.

#### Northeastern Streams

Sullivan, Wyoming, Columbia and Bradford counties boast a number of fine trout streams. In Sullivan are Double Run, Lopez Run, the Little Loyalsock, Lopez Creek, Hogland Branch, Glass Creek and Black Creek. These streams are all accessible by auto by taking Highway Route 220 from Dushore.

**Fishing Creek** in Columbia county. Big trout water. Take Highway Route 11 to Bloomsburg, turning to Route 42 to Millville, and in Millville turn right to Route 115 to Benton.

**Mehoopany Creek**, Wyoming county, a fine brook trout stream. Trout fishing in this stream all above Forkston. Turn from Route 220 at Dushore, taking Route 487 to Ricketts. From this point it is necessary to walk.

**Mehoopany Creek, North Branch.** Lower waters accessible at Forkston on Route 87, either from Tunkhannock on Route 6 or from Dushore on Route 220.

**Bowman's Creek.** Accessible on Route 92, off Route 6 at Tunkhannock, or from Wilkes-Barre on Route 309, turning to Route 92. Stream flows through Noxen.

**Meshoppen Creek.** Two good tributaries, Riley and White Branches. Brook trout predominate. These streams are accessible at Meshoppen on Highway Route 6.

**Shrader Creek**, Bradford county. Good brook trout water, occasional brown. Accessible from Towanda, which is located on Routes 6 and 220, by way of Monroeton to Powell, then taking dirt road paralleling the stream for a distance of 10 miles to Laquin. Trout fishing all above Laquin.



Hogland Branch, a tributary to Elk Creek, Sullivan county. Excellent trout water on highway route 129 from Forksville to Hills Grove.



Anglerettes shared first day trouting honors with anglers last season on famous Spring Creek in Centre county.



# CHOOSING YOUR TROUT FLIES

By R. W. McCafferty

**L**AST spring the ANGLER contained several articles on tackle tactics which were designed to assist the beginner in trout fishing. The majority of fishing articles today dwell on how to catch *more* fish, but in this one we will touch upon an equally important phase—selecting the best *quality* in the flies you purchase. Careful and intelligent selection make for better success in angling.

Many years ago when dry fly fishing was in its infancy, it was practically impossible to purchase a real dry fly. In those days, when one wanted to experiment with "dry fishing," he would choose a heavily hackled fly and depend entirely upon a grease or oil preparation to float it. A balanced fly was practically unknown and with the soft hackles and necessary false casting to help dry the fly, that lure was not a very good representation of a natural insect. The same thing might be said in reference to nymph fishing. If one wanted to try that manner of fishing, he invariably chose a sparsely tied wet fly. In that respect, many



Tail Soft—Unable To Support Hook

wet flies represent a nymph more closely than they possibly could a natural winged insect. Today there is no excuse for using improvised or make shift flies except, of course, in very rare instances when one does not have the exact pattern of a certain type of fly. Both dry fly and nymph patterns have been highly developed. The construction of these flies has been improved to enhance their appearance, which is naturally followed by greater effectiveness.

Look first at the hooks in the flies you buy. Lures intended for undersurface fishing can be tied on heavy hooks, as that assists them in sinking quickly. For extra weight many tiers use what is known as "ball eye" hooks, the wire in the eye being of the same thickness as the shank. Winged dry flies should be tied on straight bend hooks for perfect balance. In this type of fly, if reversed or kirbed bend hooks are used, the fly with upright wings will alight and ride the surface cocked to one side, thereby presenting an unnatural appearance. This, of course, is not the case if the fly is wingless, i.e. a spider, bivable, or a plain hackle pattern. As to the hooking qualities of off set versus straight bend hooks, that is open to debate insofar as the writer is concerned. I much prefer to look to the quality of the hook and fly.

All flies should be on eyed hooks without snells. Snells are small pieces of gut, one end of which is wrapped into the fly, the other end is looped for supposedly easy attachment to the leader. Snelled flies and looped leaders are slowly going into discard. Why? Taking the

flies first, there are two major reasons. The wetting and drying of silkworm gut causes it to deteriorate rapidly. Age also causes this. The second reason is the rust or fracture which invariably occurs where the gut comes into contact with the metal of the hook. With the gut thus weakened, many flies are lost on fish, faulty casts, etc. Consequently, the useful life of the fly is only as long as the gut remains in perfect condition. Eyed flies have none of these faults and tying or bending them to a leader is just as simple as the operation of attaching a snelled fly.

With the increase in the number of anglers using eyed flies comes the natural decrease in the use of looped leaders. Loops often cause the leader to float at that point, making a slight indentation on the water's surface. This indentation, though slight in appearance to the angler, is very apparent to fish with the result that deception is impossible. That is particularly true on our heavily fished eastern streams where fish are very leader shy. For men who desire to use more than one fly on a leader, there are tied special leaders for eyed flies, tippets about six or eight inches long being tied in where loops formerly were located. This type of leader is generally used only for wet fly fishing and that practice is also on the decrease, tapered leaders on which only one fly is tied replacing the former.

Choosing the best hook requires close scrutiny. Inspect the point for sharpness and lack of markings. The barb should not be too long nor should the angle at which it rises be too acute. The latter, if it is present, often acts as a plow and prevents penetration. Especially in the lighter, small sizes—8 to 20—the bend should be flattened or forged, which strengthens the hook at that point. A properly tempered hook will have a fair amount of spring and cannot be bent easily into any shape. There are many different shaped bends used in hook manufacturing, the most popular in United States being what is known as Perfect or Model Perfect. Turned up or down eyed hooks also cause some discussion among anglers. My suggestion to beginners is not to form a preference too hastily in this respect.

Bronzed finish hooks are to be preferred because of their rust resisting qualities. Gold plated hooks are also good and are used sometimes in spider type dry flies.

Light weight hooks alone will not produce a good floating fly. That is the purpose of hackles. On wet flies the hackles point toward the bend of the hook, whereas on dry flies they stand at right angles to the hook



Tail Too Soft

shank. Those on dry flies should be glossy and above all, stiff. With the proper hackles a good floating fly need not be heavily hackled. Bushy hackled flies do not present a good natural fly imitation and after all, angling flies are tools of deception, so pick dry flies with glossy, stiff hackles. Avoid soft, fuzzy ones and carry them in a receptacle which will not crush or distort them. A decided preference has been shown in recent years for wet and dry flies tied sparsely.

Bodies of flies are made of wool yarn, fur dubbing, silk floss, quill and tinsel. It should be remembered when choosing flies with silk floss bodies that this material usually turns a few shades darker when wet. The rest of the materials mentioned are all good, fur dubbing being preferred over wool yarn because of its tendency to appear translucent, especially through usage. Quill and tinsel bodies should be coated with varnish or a similar fluid for protection and longer life. The tail is an important factor to a good buoyant fly. Whenever possible it should be made of stiff hackle fibers, or hair, which rest on the water's surface (see



Both Good Type Barbs

drawing) and assist in floating the fly. The dry fly has been stressed most because it is this fly in which the best materials are vitally important for best results.

One word about wings. Hackle points and various duck feathers from under the wings or on the breast are being more widely used on dry flies than the old wing quill sections. That is because of the latter shredding almost immediately upon using and too, the newer type more closely simulates the natural insect.

In nymphs and wet flies heavy hooks and soft tail and feeler materials are to be desired. The task of choosing quality in bucktails and streamers is not as difficult as in the foregoing flies. Heavy and strong hooks are the rule, the points nevertheless should be needle sharp. A hook sharpening stone is an invaluable adjunct to every angler's standard equipment. Tinsel is usually a part of or it constitutes entirely the bodies of these flies because of the attraction it holds for the fish. Jungle cock shoulders, those small feathers with one or two small light colored dots, tied in near the head of the fly add to its appearance—to the angler, and not infrequently to the fish. On bucktails I avoid using any on which the hair extends beyond the bend more than one third the length of the hook shank. I believe the hair used has very little natural action of its own, the action being imparted to the fly by the angler turning the trick. Long, streaming hair therefore serves no particular purpose but results in many short strikes. That is purely a personal opinion, based upon many experiences. This protruding effect is different in streamers. These flies are





Proper Riding  
Dry Fly



High Riding Spider



Ball Eye

customarily tied with materials possessing an action not found in bucktail hair. Marabous are symbolic of that action. A long streaming feather on a short hook emphasizes the action. Short soft feathers and long hooks produce sad results. The short feather wraps round the shank and a whirling, twisting action occurs. In the case of the hooks that are too long, due to the lack of support, the hook hangs down and away from the streamer feather and is not in a business position when you get the strike, the fish often striking only the feather.

One phase most generally overlooked in buying flies is color. One should aim toward a balanced collection, having flies of one pattern in every sensible size. Often when a fish rises

but refuses to take, it is a case of wrong size rather than pattern. Incidents proving that have occurred many times to the writer, and near the close of last season was so forcibly driven home that it shall never again be forgotten. I had no trouble interesting over two dozen trout into striking or investigating a black Marabou, but only succeeded in feeling one or two of them. Not a single fish was hooked. I believed it a case of short striking on the part of the fish or my attempting to set the hook too quickly. Fully an hour was spent trying to correct what I thought to be the fault. In the short minutes of dusk I became panicky and recalled several previous experiences. A black bucktail, about two thirds the size of the marabou was chosen. In the

few remaining minutes of daylight I raised and hooked two trout. I had made only three casts.

Instances of this nature are not confined to bucktails and streamers. They may occur to all types of flies and are particularly evident in dry fly fishing because of your ability to see the fly and fish more clearly. In this latter type of fishing it is a common error, in trying to pick a fly to imitate the natural on the water, to choose one too large. Consequently it is a wise move to try a smaller fly of the same pattern before changing to some other pattern.

All these things are important, and if remembered when purchasing flies, will lead to a better result—more successful fishing.



Question: For a modest price, which would you suggest as a good flyrod for trout, steel or bamboo?—J.R.D.

Answer: While the steel fly rod is rapidly attaining popularity and manufacturers of this type of rod have succeeded in building nice balance and action into tubular steel models in recent years, we confess a personal yen for the bamboo. At the present time, some mighty good bamboo rods having good backbone and fast tip action ideal for dry fly work are to be had for from ten to fifteen dollars. In choosing a rod for fly fishing for trout the weight range should be from 3½ to 5½ ounces. While rods weighing more than 5½ ounces are satisfactory for bass fishing, we believe you'll get more satisfaction with rods weighing under that figure in trouting.

Question: An interesting discussion has been started by fishermen and clubs on the question "Does a catfish have scales?" How about it?—C.H.G.

Answer: Members of the catfish family in Pennsylvania are the only freshwater fish in our streams and lakes which do not have scales. While the impression exists that the common eel also lacks scales, this species has minute scales, deeply embedded in the skin.

Question: How does Pike county rate as a trout fishing section? What would be a good central location for fishing this area?—R.A.G.

Answer: Pike county has some of the outstanding trout streams of the state, including the Big Bushkill Creek, a stream 21½ miles in length, 10 miles of which are in Pike, and the Lackawaxen River, 27 miles long with 11 miles in Pike. There are also many good smaller streams such as the Sawkill Creek. The town of Milford is well located for fishing this area. Would suggest for more detailed information you write to our veteran warden in that county, Frank Brink of Milford.

Question: In what year was the brown trout introduced to Pennsylvania waters? Were the first brown trout brought to this country from Germany or Great Britain?—R.M.

Answer: The first brown trout to be introduced to Pennsylvania waters were hatched at the Corry Hatchery in Erie county in 1886, two years after the first shipment of brown trout eggs had been received at a hatchery on Long Island, New York. These eggs were received from Herr Von Behr, German Fish Culturist. Later, shipments of brown trout eggs were also received from Great Britain.

Question: What is the difference between the Loch Leven trout and the brown trout?—H.R.D.

Answer: The Loch Leven trout and the European brown trout are one and the same species. The Loch Leven trout carries that name because it occurs in that beautiful lake in Scotland.

Question: What particular species are the rainbow trout now being stocked in Pennsylvania?—A.F.L.

Answer: The particular type of rainbow trout now being produced at Pennsylvania hatcheries are the McCloud River rainbows, long known as the "rainbow trout of the fish culturist".

Question: What is the shortest time that trout eggs usually hatch at the hatcheries? What seems to govern this?—H.G.

Answer: In about 40 days at the Huntsdale hatchery in Cumberland county. High winter temperature of the water at this hatchery is one major contributing factor in rapid hatching of the eggs.

Question: I understand that in Great Britain remarkable strides have been made in trout stream management. How long a period do they require to make their experimental findings?—R.G.

Answer: Trout stream management on private estates in Great Britain has been brought to a high standard of perfection. In the study of their native fish, the brown trout, experimental work very often may cover a period of ten years to definitely establish a particular finding.



# THRICE THIRTEEN

By MALCOLM EAGLES RUNYON

NEAR the poster marking the closed waters upstream, John Rogers stood in his dripping waders and stared at the old fellow fishing slowly towards him until, as he fell to musing, the figure faded imperceptibly from his gaze. It was easy to day dream there in the late afternoon . . . where he'd made paper boats, and learned to swim, and caught fish on two-for-a-penny hooks. He had always been going to come back, but somehow until this day he just hadn't done so. And now, with the iron of his hair turning to steel he was on his boyhood stream again, a stream that seemed scarcely to have changed.

Perhaps in a measure this was due to the man whose name footed the NO TRESPASSING sign. If so, it is doubtful if John would have been appreciative. For he had been brought up to hate Dudley Durand. Everyone hated him. Then the men worked in his acid factory or cut timber for its insatiable appetite earning their living yet destroying it as he grew richer while they, ruining their heritage, grew poorer. It was said he was worth a million; but most of the stories drifting to the city, where John lived, were of the man's eccentricities. With *his* money he could afford to be that way.

Intently at first he studied the figure approaching, for he hoped it would prove to be some villager who would remember him as a lad, but the fellow fished so deliberately that,

after having read the poster, John began to muse again on the Land Baron. What kind of chap really was he now? Had he mollified with the years as they said? Or were the tales only the kind of gossip where the wish is father to the thought?

"What you waiting for . . . why don't you catch that fish?"

The curt hail coming from the native with the unexpected suddenness of a Blue Jay's insolent cry startled him from his dreaming. He looked up into a tanned and unshaven face, a face with a jaw curved like that of an ageing trout; and eyed the man before answering. Only one thing about his attire was striking. This was neither the shaggy grey coat, 'most as ragged as the sides of a shell-bark hickory, nor the home-made creel that stamped him a rustic, but rather the combination of numerals on the fishing license, an ember celluloid disk on his hat around which were clustered fan wings; variants and bivalves as though they were naturals and it a daub of pure nectar. Most anglers would have refused 131313.

"I'm not a poacher," John replied, pointing to the sign with the tip of his rod.

"Then what you doing here?"

"I fished up to the marker . . ." He couldn't express his feelings to so testy an old autochthon.

"Well . . . you see it's closed!" The jaw curved his features into a sardonic grin.

"Sure . . . how's it you were fishing there?"

"ME? . . . I live here . . . I fish anywhere . . . Durand lets us fish all his waters."

"Mighty decent of him . . ."

A loud "smack" interrupted them. It came from a part of the stream which might have been the border of the preserve—where a large trout—sinking back—whacked the surface with his tail as if he knew he were in a sanctuary and enjoyed tantalizing them.

The old codger muttered in an undertone, "Wouldn't hurt the creek much if he did let you City Fellows on . . . you get only the hatchery fish . . ."

John was the kind of fellow who knew when to hold his cast . . . and his tongue.

The old man waded in. On a long diagonal from where John was sitting and in the glassy wake of a boat-shaped boulder the big fish was feeding. Between was white water. The chance of a fly floating without drag was slim.

For a native though, he cast well. His long leader dropped in a loose curl so that the Fan Winged Coachman rested quietly for several seconds before being jerked away as the current absorbed the slack. Just before it was snatched across the surface, a wave coming from the bottom seemed to bump it.

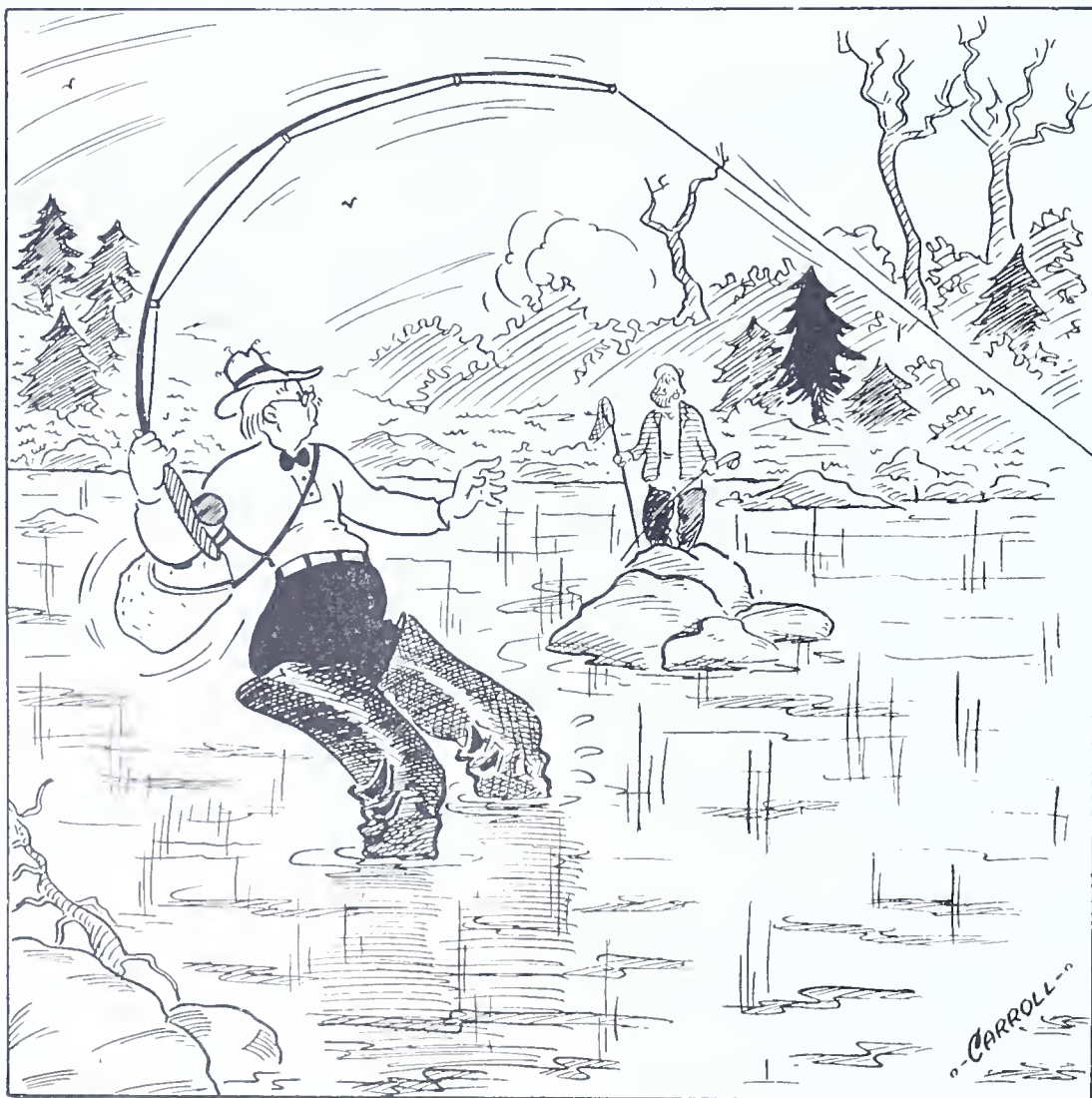
"Nobody's going to get *him*," was the rustic's terse verdict as he moved past and down to a fallen tree at the head of a little island dividing the creek, where he laid aside his rod and wading-staff landing net and mopped his head with a red bandana.

John studied the stream. It wasn't so much wanting to hook that particular trout; rather he felt a mounting vengefulness towards the crusty old native whose stigma and brusque manner had derailed a long train of pleasant reminiscences.

He wasn't altogether sure . . . now that he observed closely . . . that the fish *was* in the posted portion. And as if to settle all doubt, it dropped downstream a rod or so further as he watched; moving to feed on the flat in the manner of large trout on early evenings. At any rate he would be stretching his casting more than he would a legal point if he were now to make the attempt from the opposite, and more difficult side.

Still, he did feel a little self conscious as he picked his way across carefully and, hugging the willows on the far bank, inched quietly against the fast water until he was in range and directly in line with the feeding station. From this coign of vantage no cross current would drag an upstream line. He stopped to change his fly, selecting one of his own concoction with a quill body and oversize hackle—a mixture of yellow, green, and red, producing something of an iridescent effect.

Before starting to cast he glanced back downstream. Sure enough, the native was still there . . . and staring. Perhaps it was the softening effect of distance or, again, it may have been his imagination, but he really believed the old codger was interested. He felt as if he were being observed in the way an old



"The rod arched like a long bow drawn to arrow's length."



hound watches a pup scent game for the first time.

Waiting until the brownie rose again . . . for he was sure it was a brown by the way it was feeding . . . he cast backhand, laying his line so that the fly fell gently at the current edges, first on one side, then on the other, and skirted the glide as airily as a milkweed blossom.

Shortly the lure had covered all the space where the fish had been rising. Every cast had been perfect . . . not a single splash had marred the surface to put the trout down. From the corner of his eye he stole another glance at the old fellow. He seemed to have an amused yet interested expression.

As he debated whether to change his fly, a gusty current of wind caught it . . . whirled it . . . the leader winding as though it were an elastic. Falling, it unravelled . . . the feathers flicking on the pane-like water.

Its iridescent colors on the glassy patch resembled a glistening oil bubble. Then . . . just like an oil bubble . . . it vanished.

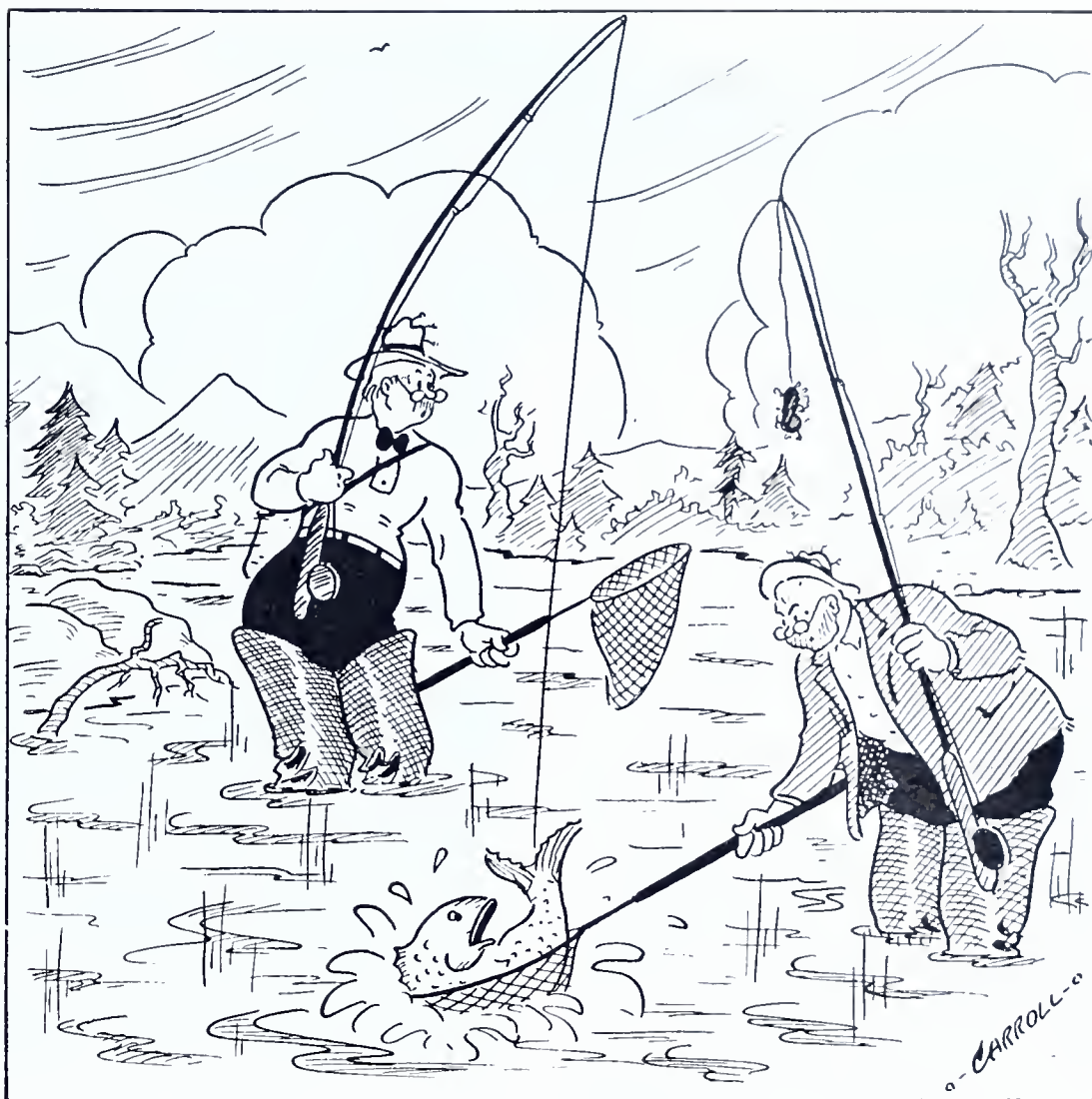
Ugh! His arm was jerked as unexpectedly as on hooking a tree behind . . . the rod arched like a long bow drawn to arrow's length. The big brownie burrowed furiously into the most turbulent currents . . . bored through the rift . . . UP . . . UP . . . UP . . . Flash! A broad, gold side gleamed as the fish leaped clear at the foot of the run above.

With taut line the barb held. The trout fought both tension and the force of the flow. He veered . . . (John started to move up) . . . poised for a few seconds on the brink of the breakaway . . . then tore down the very center of the fastest part.

Most of the enamelled silk was out as the fish neared the island splitting the stream where it flattened before rushing through a chute on one side and dropping gently into a long, still pool on the other. He headed the fast way.

John had forgotten the native. He appeared now right in his line of vision . . . stumbling over slippery rocks . . . thrashing the water with his long handled landing net and kicking the gravel bottom with his boots. The trout paused . . . hesitated . . . then deflected to the pool.

In the quiet water the brownie's rushes became more like the short, abrupt dashes a squirrel makes up a tree. He tired. As John reached for his net he realized his waders were full . . . and that the old fellow was



"The native's long-handled landing net had snared the trout."

right by him, breathing hard. Carefully he slid the meshes over the fish.

Its colors gleaming in the afterglow, the big brownie was the aftermath of a day of fishing for memories. How it would have warmed the cockles of his heart to have heard, "Be'int you Hank Rogers' boy?" instead of "Good work, lad."

But one thought marred the pleasure of catching the trout . . . the possibility of it having been over the line.

He bent over, removed the fly with a gentle twist and let the fish float free, belly up with the current. The fins twisted as it half turned. *SPLASH!* The surface was slashed as crudely as though by a Kingfisher's clumsy dive. The native's long-handled landing net had snared the trout. Taloned fingers seized it . . .

dispatched it . . . literally dumped it into John's creel with an under-the-breath mumbling coming from tightly drawn lips.

That night, on his way home, John resolved to return soon. But first, he reasoned, he must find some one among the remaining old people who would remember him. Some one like this old weatherbeaten native with the curved jaw. Some one who could tell the Land Baron he really had been born up there. And . . . hang it all . . . he had forgotten to ask the old fellow's name. Never mind. There was that odd license number. Simple.

Next day he wrote to the Board of Fish Commissioners. Promptly came the reply, "In answer to your inquiry, would say that Resident's Fishing License No. 131313 is issued every year to Dudley Durand."



Members of the Indiana Fish and Game Association stocking rainbow trout in Big Yellow Creek, Indiana county.



His pet stream in a Pittsburgh art salon. This picture was taken while Dr. George Kesel inspected his entry.



# TROUTING TOPICS

## Notes on Fishing for Charr, Brown Trout and Rainbow Trout

By ALEX P. SWEIGART

IT'S March and that's just another way of saying that a strange malady, known in well-informed piscatorial circles as "troutitis," has assumed epidemic proportions in the realm of anglerdom. Where the clans of Walton gather until that red letter day of the angling year, April 15, one password and one only is needed—"Trout." In all probability, some part of the conversation will center about the native charr or brook trout, the brown trout and the rainbow trout, our three species of cold water fighters. The following notes and observations concerning them cover a number of years and are offered with the hope that they will make your trouting trips more interesting during the coming season.

That wisely worded saying, "It is not all of fishing to catch fish," is particularly applicable, we believe, to this fascinating sport of trout fishing. The atmosphere of mountain country and meadowland through which flow many of our best trout waters is magnetic and soothing in quality. Very often the hollow booming of a grouse on the drumming log, the chatter of a gray squirrel from some den tree, or the mincing, graceful approach of a deer to the stream may add just the touch of variety needed for a perfect trouting day. As for our quarry, whether brook trout, brown trout or rainbow trout, no season passes but that it serves to impress on us more forcibly the realization of our very limited understanding of these fish in a wild state. Variation in color of trout in different stream sections and different streams, their foraging habits in early, middle and late season, their preference for certain feeding stations in a stream over other possible feeding grounds that appear to the human eye to possess just as many advantages—here are only a few of the perplexing problems that present themselves during a day astream. Study of various phases in the life of trout in a wild environment can be made just as fascinating as catching trout, and volumes are to be written on this subject of trout lore. The surface has barely been scratched.

Knowing a stream, the location of its pools, the best approach from the angle of shore cover screening the fisherman, particularly in brushy mountain streams, and conditions favoring the use of certain baits are vital assets to the successful trout fisherman. An incident that oc-



The coloration of the rainbow trout blends well with its environment.

curred a number of years ago on a central Pennsylvania mountain stream is the only illustration needed to confirm this fact.

A fishing comrade stopped one morning at the mountain home of "Pilly Jake," one of the best fishermen and trappers we have ever known. Now, Jake was never one to let work interfere with his fishing, and in the proverbial "two shakes of a lamb's tail" he was seated in the car.

"Where's your tackle, Jake?" brought forth the somewhat cryptic remark, "Got it here." "Here," he indicated by pointing to slight bulges in his two hunting coat pockets.

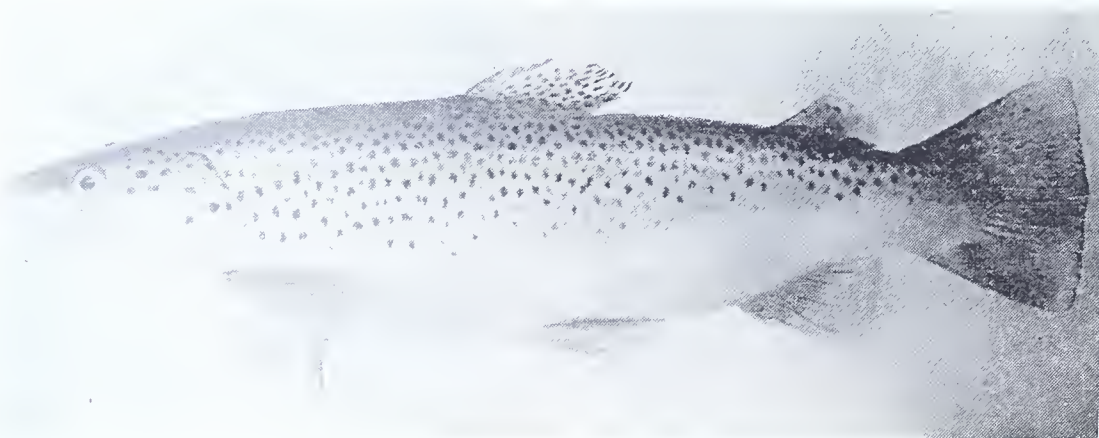
Arrived at the stream, Jake produced a small tobacco tin in which he carried some lively red worms, a small Kirby hook and a spool of strong black thread.

His answer to "How about a rod?" was "Cut me a switch along the crick." Then—"Which way you want to fish, Harry?" Harry elected to fish the lower stream, and Jake headed into

the gap. Two hours later they were back to the car. One 8-inch brook trout graced Harry's creel; Jake carried ten vividly marked brookies, from 8 to 11 inches in length, on a willow stringer.

We mention this incident in passing to illustrate a fact pretty well recognized these days, that having fine tackle does not necessarily mean taking fine fish. To counter the latest improvements in fishing tackle on this occasion, Jake possessed a keen knowledge of "the lay of the land," as he put it, in the territory he fished plus a method of approach to the water he intended fishing that might have been compared to a bobcat stalking its prey.

For those readers who prefer remote wilderness waters where the native charr or brook trout still flashes to the strike, the following suggestions as to good natural lures are made. In many instances, particularly in the north tier counties, mountain streams are high early in the season, and even in later season fishing, these streams are so brushy that effective work with the fly is extremely difficult. A favorite bait on central Pennsylvania mountain streams of this type has long been the pine sawyer or "grub," to be secured by ripping the bark from rotting pine logs in the timber country. The grub worm, to be secured in the sawdust about woodpiles, is also a good early season trout lure, although it is so soft that difficulty in keeping it on the hook is often experienced. Small garden worms, pink, white or red, are ranking favorites with many fishermen for early season, high water trouting. Later, crickets and then yellow bodied grasshoppers take their share of trout. As for hooks, snelled hooks, preferably sizes 5 and 6, fished on three or six foot leaders, are often used by successful bait fishermen. Prior to the opening of



Brown trout.



trout season each year, the ANGLER receives many inquiries concerning good lures to use. In offering the suggestions just made, we desire to stress one fact, however: just so soon as stream conditions permit, switch to the artificial fly, dry or wet, the nymph, the bucktail or marabou streamer. You'll find in this type of trout fishing the cream of the sport.

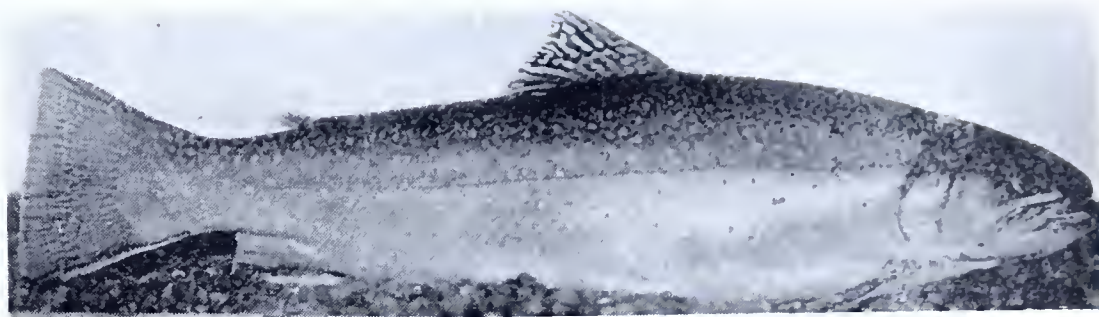
### NOTES ON THE CHARR

Our native brook trout or charr has long been regarded as a rival in beauty for the now extinct Michigan grayling. While it does not achieve the weight in Pennsylvania waters of the introduced brown trout and rainbow trout, it is extremely swift in the strike, fights a flashing, rugged underwater battle and ranks at the peak of popularity with many trout fishermen.

Brook trout waters in Pennsylvania are usually smaller streams, in either mountain or meadowland. The picturesque character of mountain trout streams, with their swirls and rapids, log jams and waterfalls adds definitely to the charm of fishing them. A number of years ago, we had the pleasure of fishing one of the most magnificent streams of this type in the east, Four Mile Run, in the Gorge, Tioga county. Dangerous fishing, this gorge, where in spots the light of day never penetrated and ice formed during the winter remained through the summer. Black as the ace of spades over the back, with crimson spots and red bellies, the brookies from this stream were the most vividly colored we have ever seen.

In trying mountain trout streams, you will often find the best fish in places hard to reach; log jams, with the water swirling dark and forbidding beneath the mass of shattered timber and pools cutting beneath the roots of trees are typical. When feeding, we have observed that brook trout often station themselves in the swirls and eddies near the heads of pools, darting from the comparatively quiet water in such spots into the current to seize current-carried food and returning quickly to their former station. In some mountain streams, it is possible to fish a fly and, bearing in mind that charr always lie with heads pointing upstream, it is a good plan to fish directly or quartering upstream if possible. If the stream is so brushy that fly casting is virtually impossible, worm or other natural lure floated with the current for from 15 to 25 yards downstream may bring results. No lead is needed. Mountain trout are extremely sensitive to muddy water, a fact to bear in mind when fishing downstream. "The less wading the better results" seems a good rule to follow. A 10-inch native trout from any of our mountain waters is a good fish and one of which any angler may be proud.

From the angle of size in the brook trout they yield, some of our spring fed meadow trout streams are the most deceptive in the state. Streams which you may literally step across in reality may carry a good volume of water, the current cutting well beneath the banks. Such waters, particularly in limestone areas, are ideal for the speckled trout, providing as they do the very important requisites of good cover and crustaceans such as the crayfish and scud, or freshwater shrimp, and good hatches of aquatic insects as a food supply. A number of years ago, we saw a 14-inch charr, heavy girthed and highly colored, taken from a little stream of this type. It is well to remember, in fishing meadow waters of this character that



Brook trout.

trout to be found in them are extremely sensitive to vibrations which the undercut banks record readily. Tread lightly and fish as far back from the shoreline as you possibly can.

### Wary Brown Trout

One of the wariest trout the angler can deal with is a brown over the 18-inch mark. When in feeding mood, however, these cagey browns have seemed at times to cast discretion to the wind; the catch in it is to strike them on one of these occasions. Generally, we have found smaller brown trout to be just as responsive to the lure as the brookie, under similar conditions, but the old timers of the species are problem fish in no meagre sense of the word.

Generally, big browns appear to like good cover as well as do the brook trout, with this exception: the brooks will often take up their feeding stations during the day in fairly open water in pool or riffle, within easy access of a shelving rock or other cover; big browns, on the other hand, may very often lurk beneath a washed-out bank, sunken log or other shelter

during the day, rarely taking up feeding positions in a pool until dusk and usually returning to their lairs by or shortly after daybreak. Night feeding with big brown trout seems to be a fairly well established custom. Even when the shad flies or green drakes appear on the surface around Memorial Day in certain streams, the really big browns seldom seem to bulge the surface until nearly dusk and very early in the morning. We have noted one exception to this night feeding tendency, during that brief period when yellow bodied grasshoppers first become available. Brown trout of all sizes seem to have an insatiable desire for these insects during one or two weeks of every season, and one of the largest browns that ever graced our creel was taken in a Juniata county stream at midday with a 'hopper. Usually, the best grasshopper fishing time seems to come around the first of June.

Brown trout fishermen who know how to use the minnow-on-a-wire combination, with the swivel and double hook, rank as perhaps the most deadly and consistent takers of big brown trout in the state. It is well to remember, however, that spotting these big fish, and securing by observation a good knowledge of their daylight lurking places as well as their feeding stations about dusk, is essential to taking browns well up in the weight brackets. A good wormer, the man who knows how best to float a nightcrawler beneath shelving banks and log jams, also accounts for some fine brown trout. When one of these old browns takes the worm, usually no vicious strike, as in the instance of smaller browns, is felt, but more of a steady tugging somewhat on the order of an exaggerated sucker bite. After hooking, the fish often uses its weight to exasperating advantage in tangling the line beneath a log jam and subsequently tearing off.

In taking not only brown trout, but also brook and rainbow, a study of conditions prevailing on the stream at a given time usually rewards the angler. Take opening day of the season, April 15, for example. If a warm spring rain has fallen the night before, tending to raise the water level and discolor the stream, a good bet for a lure would be the angleworm. Stream-wise trout are usually on the alert for current-carried food that happens to predominate at a given time, and earthworms washed from the banks of the stream on an occasion such as this provide them with a good source of forage. If a violent downpour has muddied the water in a larger stream where big brown trout occur, some outstanding catches of this species are to be made in the first hour or two of rapidly rising water levels. Nightcrawlers fished at times like this, and at night when their presence in the stream is perfectly normal, have proved the undoing of more than one cagey brown trout.

(Turn to Page 18)



Mill Run Glen, brook trout water in Tioga county.



# TYING WET FLIES

## (For Beginners)

By CHAS. M. WETZEL

THIS article will deal with tying wet flies, perhaps generally the most effective artificial flies for early season trout fishing. Later in the season, dry flies generally come into their own although I have known of occasions when early season hatches of flies made the dry fly most effective.

I am not a professional fly tier, though regularly each winter, I tie a hundred or more—mainly from the fascination there is about it and to keep my stock replenished. Had I known in the beginning some of the finer points which later only came through bitter experience—how much trouble would have been saved.

It is impossible to imitate exactly any natural fly; the very thought is absurd and even if it were possible, would the trout take them in preference to some of our old reliable patterns, which are at best merely suggestions of natural insects? Sometimes I doubt it—then again after a successful day, with a fly which I have simulated closely, as to size, shape and color—former doubts are swept aside, and I become convinced a close imitation proves superior.

There is far more back of this fly fishing than mere surface imitation. Light reflections of the natural fly may play an important part, and who can tell how a fly appears to the trout under water? I believe that they can distinguish color, and I have had them pick out differences in flies apparent to the human eye. Bass and pike are known to be sensitive to red, as witness the success of such outstanding patterns as the Red Ibis, Paramachene Belle and others; and a small fleck of red on a trout fly often proves the turning point from failure to success. Whether it arouses their fighting instinct or appeals to their appetites, no one knows.

After some twenty odd years fly fishing experience, I am rather liberal in my views, and can not criticize an artificial dun, drake or spinner just because its body is not elevated and reversed, like the natural insect—for these flies will take trout and take them under such conditions that no unprejudiced angler can doubt that they are taken for their natural prototype.

No doubt some of you will consider it a waste of time and energy even to attempt such a tedious operation as tying a fly; but I assure you that anyone who has the patience to follow the various illustrated steps can, at the first attempt, turn out a fly which, though probably crude in appearance, will nevertheless catch fish, and not until you have actually caught a trout on one of your own creations have you experienced the greatest possible thrill in fishing.

The object of this article is not so much in close imitation of natural insects (though suggestions will be given from time to time) as in mastering the technique necessary to turn out a fly which will catch fish; and everyone agrees that successful simulation can only be judged by the fly's fish-taking qualities. The flies we are about to tie are more or less suggestions of natural insects, as are most of our standard patterns. Many of these are creations of fancy and bear no resemblance whatever to any known insect.

Fly tying is merely a mechanical process and is within the reach of everyone, though the ability to closely imitate a fly is something that can only be acquired through experience and a study of the natural insects.

We will first tie a gray hackle with a yellow body; and since I guaranteed your first fly would take trout, I am naturally picking out one that has a good reputation, and at the same time, one of the simplest to tie. This yellow bodied hackle is tied as a wet fly and is good during June and July practically throughout the state.

There are two types of hackle flies—hackles and Palmers. Palmer hackles are spirally wound full length around the body, and made fuller at the head or shoulder, while in the fly we are going to tie, the hackle is only wound on the head.

Izaak Walton, in *The Compleat Angler*, makes repeated reference to the hackles and Palmers which even today still go under those names. From what I have been able to gather, the Palmers were originally tied to represent the caterpillar of the tiger moth, while the regular hackles were designed to imitate the pupa or nymph of the natural stream flies as they were rising to the surface, ready to take to flight. This seems natural, too, when we consider that the fly has no wings.

Of late years, flies called nymphs have appeared on the market and are more exact imitations of the natural pupae. They are made in an endless variety, but the great majority are tied with a bulging thorax and have a smooth section of feather, flat over the back—supposed to represent the partially developed wings in the pupa stage. From conversations with other anglers who have used them, and from my own personal experience, I believe that the old reliable hackles are equally as good. I hope that no one may misconstrue the above statement, for I do not mean to speak disparagingly of these nymphs. Most of them will take trout and the one that I have had the best success with is the imitation of the drake or May fly. These nymphs seem to work best when there are no natural flies on the water.

I always prefer wet flies tied with a short gut snell, as they are more readily attached to the leader. They have the objection of rusting and breaking off at the hook, but the convenience saved in attaching them more than offsets this disadvantage. After all what do a few lost flies amount to, (that is unless they're fast to a trout) when a little later on you may be tying them by the dozen and at a cost of less than two cents apiece?

We will now proceed to form the loop in the short gut snell. First soak the gut in water to soften it, then hold loop at point A, Fig. 1 with thumb and first finger of left hand. Grasp end B with thumb and first finger of right hand and form the second loop, holding it at point A with the left hand, see Fig. 2. This will be the size of the finished loop. Then again with thumb and first finger of right hand at B, take this remaining end and lay it across and between the two loops previously formed, as shown in Fig. 3. Now from the back, reach through the first loop formed—grasp the sec-

ond loop at Point C, Fig. 3 and pull it through—meanwhile releasing point A and holding with left hand at B and D until loop is tightened. Fig. 4 illustrates the second loop, being pulled through the first. Trim off end B, and the loop is complete. This is a good knot; it will not slip and I also use it for forming the loops on my wet fly leaders.

Now that we have snell all prepared, we will also require a small vice (from the "5 and 10") some wax (equal parts of beeswax and shoemaker's wax kneaded together is good) a spool of No. 00 silk thread, (from the wife's sewing cabinet,) her scissors, a red feather (from one of her old hats) hook, varnish or shellac, a strand of yellow wool, chenille or floss silk, some fine tinsel (probably off of last year's Christmas tree) and hackle, from a Plymouth Rock rooster.

I would not advise the purchase of any more equipment until after you have tied a few flies; then if you are sufficiently enthusiastic about it, such articles as a more elaborate vise, hackle pliers, etc., can be procured from time to time. I started out with equipment similar to the above, and now I have difficulty in getting all my "junk" in a good sized grip.

The hackles are the feathers found on a rooster's neck, and on the saddle just in front of the tail. The saddle hackles make the neatest appearing wet fly but I generally use the neck feathers. Bantam roosters furnish excellent hackles for small flies. The size of hook used determines the size of hackle. I usually select my hackles so that the length of hook equals the length of fibres on the hackle, as shown in Fig. 6. The hackles should always be selected from the male bird as they are stiffer and glossier in appearance, though in the wet fly, stiffness of hackle is not essential. Select a fairly heavy hook as it sinks more readily, which it should—this being a wet fly. Now that everything is in readiness we will start tying the fly.

First wax about fifteen inches of No. 00 winding silk and with it make a few turns around the hook as shown in Fig. 7. Run end of recently completed gut snell through eye of hook, and wind it securely fast to shank, ending at point E, see Fig. 8. Cut out two fibres from the red feather for a tail and have a piece of fine tinsel about three inches long ready. The yellow wool strand should be thinned out at the end, to avoid an unsightly lump at point E.

With winding silk, lash tail fibres, ribbing tinsel and wool strand at point E, Fig. 9, making a few turns around the hook—then continue with the winding silk back to point F, where the wax on it will usually hold it in place.

Take the strand of yellow wool, between thumb and first finger of right hand and wrap spirally around hook, forming body and holding in place at point F, Fig. 10, with a few turns of the winding silk. Then fasten with a half hitch. A half hitch is simply a loop turned in the silk, slipped over the snell and pulled tight when in position. Be sure and keep body at least an eighth of an inch away from eye of hook, as hackle must be still



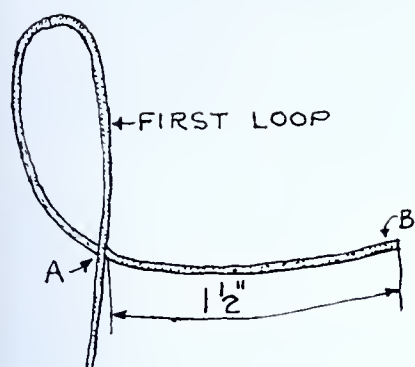


FIG. 1.

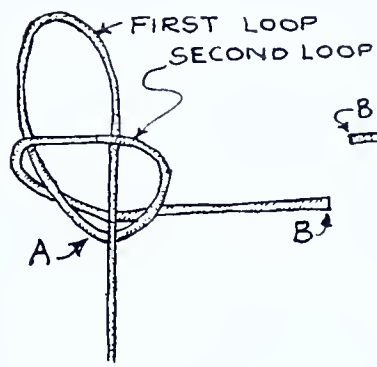


FIG. 2.

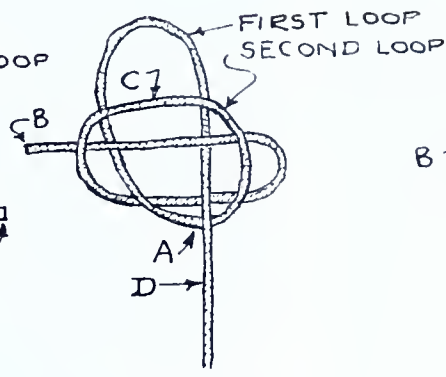


FIG. 3.

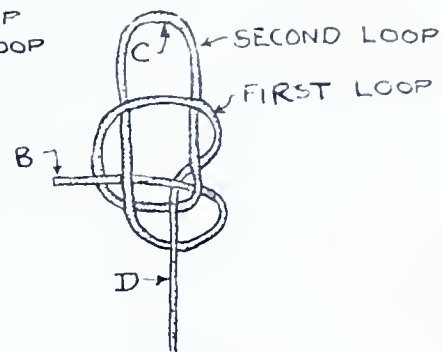


FIG. 4.

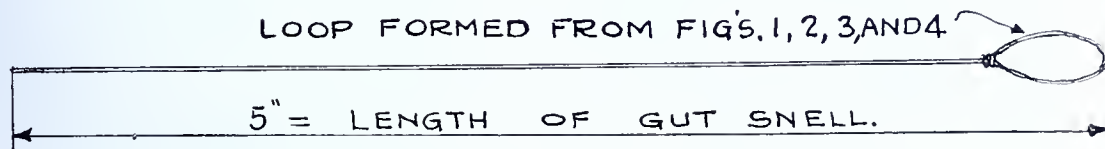


FIG. 5.

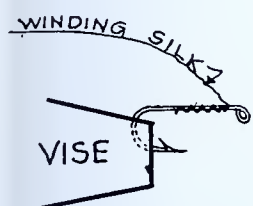


FIG. 7.

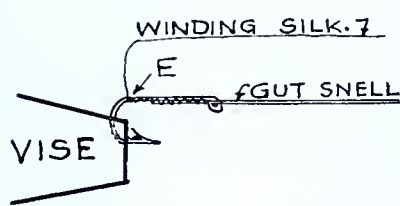


FIG. 8.

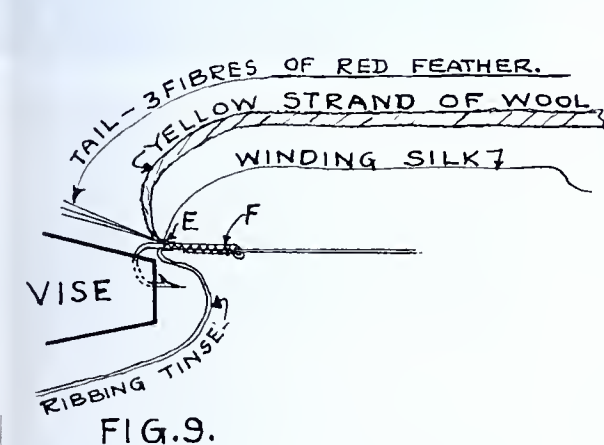


FIG. 9.

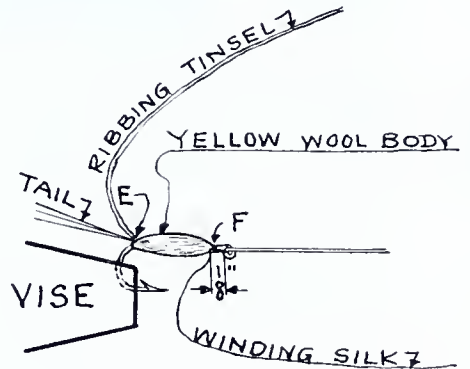


FIG. 10.

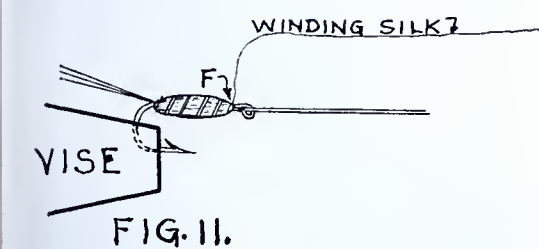


FIG. 11.

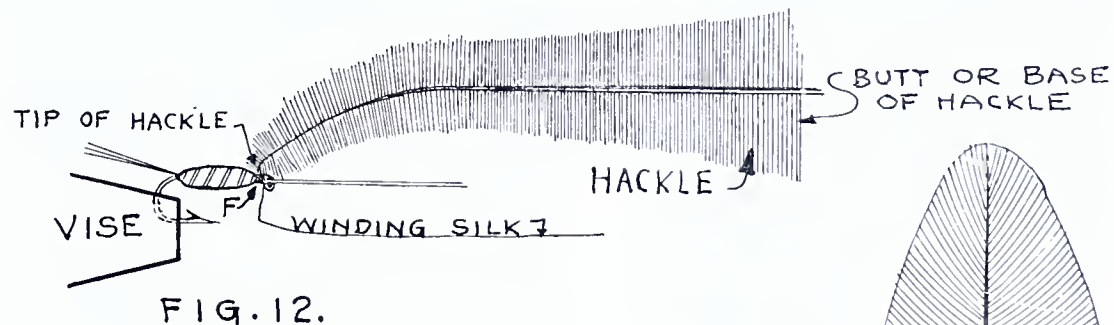
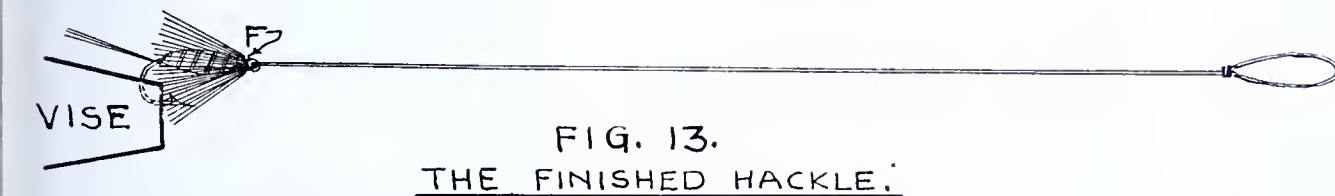
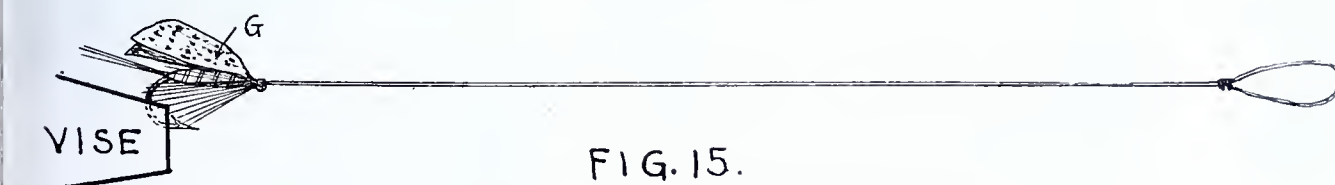


FIG. 12.

FIG. 13.  
THE FINISHED HACKLE.FIG. 15.  
THE FINISHED WET FLY.

SKETCHES BY THE AUTHOR.

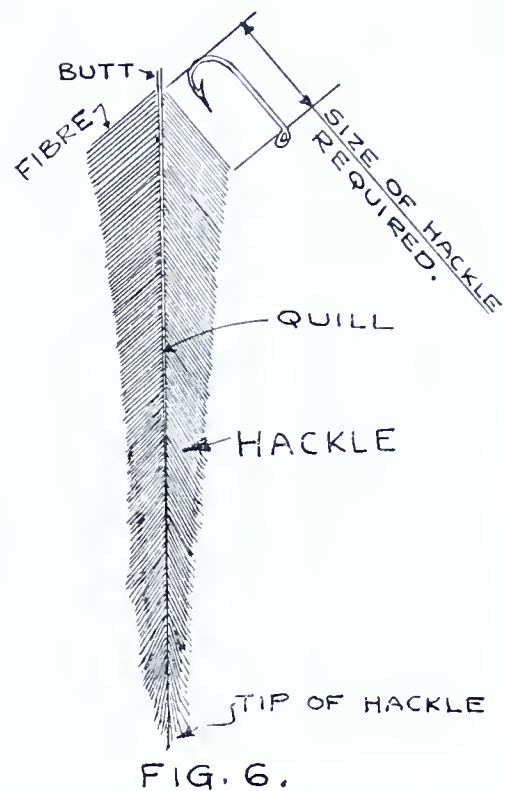


FIG. 6.

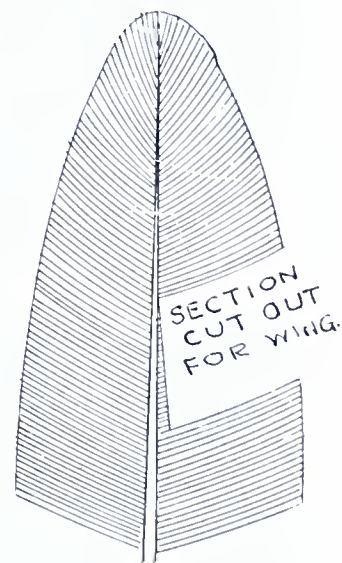


FIG. 14



wound on. Trim off surplus end of wool strand.

Next, with the ribbing tinsel, take a few turns around point E, then wind spirally around body, fastening at point F, Fig. 11, with a few turns of the winding silk and another half hitch. Clip off surplus tinsel. I generally fasten hackle pliers to end of winding silk letting it hang; this tension holds the wool and tinsel in place and the half hitches may be avoided. The body of the fly is now finished.

Strip the down from the hackle; then hold tip of hackle in right hand and with thumb and first finger of left hand strip down towards the butt, so that the fibres will stand out at right angles to the quill or lean slightly back towards the base, as shown in Fig. 12. Stripping the hackle makes it easier to wind on and the fibres will not mat or double under so quickly.

Fasten tip of hackle with winding silk at point F, Fig. 12, then wind hackle around the shoulder, fastening butt at point F with a few turns and two half hitches. Give the winding silk a sharp jerk and it will break off cleanly at the knot; but since it is quite a trick—perhaps it would be best to cut it off with the scissors. With a needle pick out the fibres of hackle which were doubled under while tying it on; and with a tooth-pick dipped in shellac, touch up the head.

Now the fly is complete and though your first attempt may be somewhat ragged looking, yet it will take fish; sometimes the more bedraggled the fly, the more effective it is.

#### The Wet Fly (Professor)

Since we have the body material available, we will now tie a wet fly called the Professor; the only other things necessary are a mottled duck wing feather and the rich chestnut brown hackle from a Rhode Island Red rooster.

To tie the fly proceed as in Figures 7 to 12 inclusive; from the body, wind the brown hackle on sparingly, so that it will sink more readily, as we are now adding wings which make it more buoyant. Fasten hackle at F, Fig. 12, with a few turns of the winding silk and a half hitch, leaving a space of about a sixteenth of an inch, between hackle and eye of hook, to fasten on wings.

Smooth out a section of the mottled duck feather and strip the fibres between thumb and first finger of right hand until they are at right angles to the quill and present a flat surface when released. Cut out a section as shown in Fig. 14, so that the length of fibres is equal to the length of hook; fold this over once, making it double, with concave sides in or together.

Grasp wing between thumb and first finger of left hand at point G, Fig. 15, so that butt of wing fibres rest above and slightly straddle eye of hook; then hold wings firmly to prevent slipping, and with winding silk take a few turns around hook—lashing wings securely in place and fastening with two half hitches. Trim off the excess butt end of wings at eye of fly; touch up the head with shellac and the fly is finished.

#### WETZEL REVISES FLY TYING BOOK

We've just had word from Chas. M. Wetzel, whose articles on aquatic insects and fly tying have been popular features in the ANGLER,

that he has completed revision of his splendid booklet "The Art of Fly Tying."

In this revision, he has compiled additional dope on bucktails and streamers, cork bodied lures, hair wing flies and deer hair bugs and their construction. We have had numerous requests from readers concerning the procuring of this booklet. For their information, it may be secured from H. J. Noll, 536 W. Clapier St., Philadelphia, Pennsylvania. No advance in the price has been made for the revised booklet.



Ain't never seed the boys so het up erbout trout fishin' ez they be this year. Down ter the store t'other nite, they wuz shure atalkin' erbout thet furst day an' whare they wuz gonner fish. Reckon mebbe thet dandy load o' speckled trout thet came in last fall fer the big mountain crick hes set 'em ter calkalin' on how they kin mebbe land sum dandies cum trout time. Funny thing erbout the big mountain crick. Most runs wuz rite low last fall in this neck o' the woods, but she held up fine an' hez bin holdin' up good all winter. Them trout wuz shure nice, most o' them runnin' in size frum erbout 7 ter 12 inches. Thing I seed that struck me ez just rite was the way they swung inter the fast water an' stood thare, heds pinte upstream ez nice ez enny wild brookie ye'd want see. Them new fangled tank trucks shure git the trout out in grate shape, best I ever knowed.

Well, the boys wuz aswappin' yarns at a rite lively rate, when Silas Horn pipes up thet it'll be all right fer them he knows ter fish in his medder this yere. Silas was rite sore last sezun an' he goes an' posts his land. He owns a mitey fine stretch o' trout water, an' don't fish much hisself, but last yere sum fellers cut barb wire ter git ter the crick an' fust thing ye know his cattel wuz hevin' them a grate time in his wheat. We ain't got much posted land in these parts, fer most fishermen respects the rites o' the farmer. Semes like we gotter watch this land postin' er the furst thing ye know there'll be mitey scanty fishin' hereabouts. Jest a letele care an' considera-shun kin go a long way in keepin' land open. We like ter hev fishers frum uther places cum out this way, fer most o' them is fare an' squair fellers. A gude way ter figger, semes ter me, is ter treat the uther feller's propriety like yer own. Trout fishin' is too fine a sport ter take a chance on losin' sum o' our best water thru sum careless er thotless act.



Tom Forsythe, veteran Lewistown angler, made this great catch of Spring Creek brown and rainbow trout on streamer flies and bucktails last season.

The way things is ashapin' up, I luke fer a mitey gude trout year. Figger I'll be aworkin' on thet big speckled trout at the old mill hole cum daybrake o' the 15th. He's foxy an' he shure made me luke like a dratted jaybird late last sezun.



Frank Streznetcky of Scranton with his record pickerel for 1938. Length 24 3/4 inches, weight 4 pounds 10 ounces.





## REV. ZAKREVSKY'S COLLECTION OF FISHING TACKLE

Rev. L. Zakrevsky, rector of the Greek Catholic Church, of Mount Carmel, has an interesting collection of fishing tackle, fish hooks, rods, reels, flies and plugs at the rectory, 131 N. Beech Street, Mount Carmel; also guns and rifles made by Enfield, Winchester, Mauser, Savage, and a Russian army rifle and bayonet.

He is an enthusiastic sportsman and fisherman and has been a collector of fishing equipment for 30 years.

He has 372 spinners, dare-devils and spoons; 260 bass and trout flies and over 200 types of plugs, among which are some very unusual and interesting items. The illuminated plugs with small battery and light inside are unique lures. The electric bob or float for night fishing lights up when a fish touches the bait. The phosphorescent plug absorbs daylight rays and gives them out at night. He has plugs which contain mercury to give off a scintillating effect at night, a transparent plug which contains live bait—as a small frog or minnow—with a small sealed air chamber inside part of the plug and small holes in the lower part to allow water to surround the live bait thereby permitting the use of the one bait all day.

Several types of plugs have concealed hooks that open halfway when the fish strikes and fully open when the fisherman pulls on his line.

Flies of many types show great ingenuity in their manufacture. Some are made by friends and fellow fishermen of Father Zakrevsky, and each one is claimed to be the best by the respective makers. A neighbor made a very clever lure resembling a small sized dragon fly or gallinipper. This was cut and formed from an old rubber heel.

There is a collection of 8,882 fish hooks mounted on cards and in boxes. The smallest fish hook made is also shown and one would need a small gnat and a powerful magnifying glass to bait this hook. Finest examples of reels, rods, nets and rod holders are shown.

Father Zakrevsky exhibited this fishing equipment at 131 North Beech Street, Mount Carmel, Pa., June 20 to 28, 1938. Over 1300 fishing enthusiasts viewed the interesting display.

## LAWRENCE COUNTY BANQUET PLANNED

Announcement has been made by F. G. Hensley, Secretary of the Lawrence County Sportsmen Association that the annual banquet for this live-wire organization will be held at 8 o'clock, March 30 in the Scottish Rite Cathedral, in New Castle. Sportsmen in northwestern Pennsylvania look forward to this affair each year with a great deal of anticipation.

A varied program has been planned.

## CHAMPIONS THE "BROOKIE"

Our native charr or brook trout has a devoted champion in Royden J. Taylor, veteran Indiana (Pa.) angler. Writes Mr. Taylor:

"Enjoyed very much your article on the brookie. It is one grand fish and I can well remember the first one I ever caught and that was some fifty years ago. One thing that gets my goat is the general ballyhoo about the fighting qualities of the rainbow and brown trout as compared to the brook. I'll admit that either one puts on a much more spectacular show but for sheer courage and fight, the brookie has it all over the other two. He bores in and fights until he is just about dead.

"Two years ago I had an excellent chance to demonstrate this. It was rather early in the season and I was fishing above the narrows on Fishing Creek, above Lamar. The trout were on the feed and we had great sport.

"About six in the evening it started to rain. I put on a No. 12 Trude Hair Fly and in fifteen minutes, without moving my feet I caught three trout, a brook, a brown, and a rainbow. These fish were taken from the same run of water on the same fly. All were between 11 and 12 inches, almost triplets so far as size went. Now the brook trout was far harder to bring to net than either the rainbow or the brown.

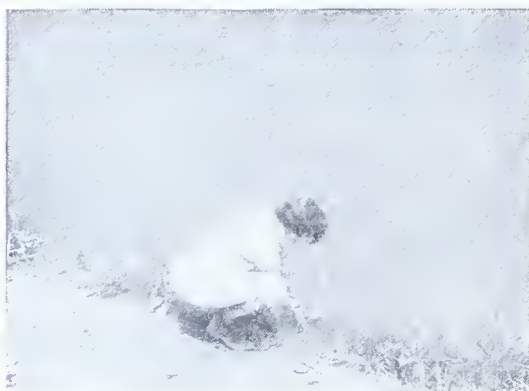
"I don't think it is often that one gets one of each kind of fish in such a short time and under identical conditions. In my own mind, at least, I proved that the brookie is the hardest fighter. Being an old timer I have always had a soft spot for this fish. The first trout I caught at the Paradise was a brook and I've never taken one since. Have taken many browns and rainbows since but this brook trout put up more fight than many of the others which would exceed him almost six inches in length."

NOTE: Now that Mr. Taylor has so ably presented an argument in favor of his pet, the brook trout, we know that plenty of our readers are just as ardently devoted to the fighting qualities of the brown trout and rainbow trout. Let's be hearing from you to start the trout argument ball arollin'.



Hatching of a Rainbow Trout. Top, eyed egg; centre, baby fish starting to break from egg. Below, day old rainbow trout showing yolk sac.





Anglerette vies with angler in these action photos of trout fishing taken last year at the Fish Commission's Spring Creek project near Bellefonte, Centre county, by Commission photographer Carl Wertz.

## SPECIAL REGULATIONS ON CEDAR, SLATE RUN

In accordance with resolution adopted by the Board at its meeting held July 11, 1938, the Board continued the projects with special rules and regulations on the following waters, and also closed the tributaries and certain sections of the main streams as nursery waters, up to and including July 31, 1943:

Fishing permitted on these streams only from April 15th to July 31st, inclusive, and between the hours of 4 A. M. and 9 P. M. Standard time.

All fishing limited to artificial fly, or bait with barbless hook.

Number of trout taken in one day limited to six.

Number of trout per man per season, thirty-six.

Legal minimum size limit nine inches.

All tributaries closed to fishing at all times. SLATE RUN (Lycoming County)

**SECTION OPEN TO FISHING**—From the junction of Cushman and Francis Branches down to its mouth at Big Pine Creek, approximately 8 miles.

**CLOSED SECTION**—Partly in Potter, Tioga and Lycoming Counties—both Head Forks, the Cushman and Francis Branches, and all other tributaries closed as nursery waters.

CEDAR RUN (Tioga and Lycoming Counties)

**SECTIONS OPEN TO FISHING**—From junction of Buck Run, one mile above Letonia down to the mouth at Big Pine Creek, a

distance of approximately 7½ miles.

**CLOSED SECTION**—Cedar Run above the junction of Buck Run, and all tributaries closed as nursery waters.

YOUNG WOMAN'S CREEK (Largely in Clinton County, heads in Potter County)

**SECTION OPEN TO FISHING**—Right or East Branch of Young Woman's Creek open to fishing from the junction of Lebo Branch and County Line Branches down to its mouth. Also open on the Lebo Branch up stream to Lebo Trail Bridge, approximately ½ mile, and up the County Line Branch to the junction of Baldwin Branch.

For the convenience of the fishermen the actual closure points on the County Line and Baldwin Branches are just above the junction of these two streams where the



road crosses them, the bridges being the dividing line.

**CLOSED SECTION**—Lebo and County Line above these points closed as nursery waters. Also all tributaries.

**THERE ARE NO SPECIAL REGULATIONS ON THE LEFT BRANCH OF YOUNG WOMAN'S CREEK.**

**DUNBAR CREEK (Fayette County) (Under Special Regulations)**

**LYNN RUN (Westmoreland County) (Under Special Regulations)** Laurel Hill Trout Nursery on this stream.

# URGE PROTECTION OF ANGLERS' RIGHTS

The Keystone Sportsmen's Association of Harrisburg, in a resolution, requested that fish be removed, property rights honored and authority obtained for dynamiting in connection with the proposed Harrisburg water supply in Clark's Valley.

Copies of the resolution were sent to the City Health Department, the Clark's Valley Protective Association, the Water and Power Resources Board, Department of Forests and Waters, the Fish Commission and the Game Commission.

The resolution noted that the creek has been the "site and location of the expenditure of much wealth appropriated from the Pennsylvania State Fishermen's License Fund, in the investment and stocking of game fish and fish life generally."

It further urged that "blasting or dynamiting be delayed until the proper authority for the same has been obtained and the proper care, handling and removal of fish is completed . . .

"That due respect for the rights of adjacent property holders be guarded and protected against trespass and/or damage either during the construction or following its completion."

The association requested that fishing, hunting or any other outdoor recreation would not be suspended following construction of the dam.

Normal flow of water upon completion of the project was another point stressed in the resolution.

# HELP A BOY PLANT A TREE

Some people live with never a thought  
That things they enjoy were dearly bought.  
They somehow imagine that everything here  
Is meant for destruction. But isn't it queer  
That men should not think when going a  
fishing  
The good things of life were not done by  
wishing.  
Who suffers the loss when our streams run  
wild  
You don't need to answer, I'll ask of some  
child  
Who's been waiting for years to hear you say  
Come out to the stream and I'll show you the  
way

To help Mother Nature by planting a tree  
Which will make better fishing for you and  
for me.

All the time that it takes, you will never  
regret

'Cause it works while you sleep and what fun  
you will get

In the years that are coming, you will justly  
feel proud

Let the thing you have done keep your head  
gently bowed.

There are trees that are useful, and trees that  
are not

So plant a young willow, choose a favorable  
spot,

With a sharp pointed bar make a nest for  
the shoot

That will soon find its stride and as quickly  
take root.

Then watch the tree grow, though the years  
be but few

'Till the tree has miraculously transformed the  
view

For the lovers of Nature who choose now to  
stroll

In the great out of doors just to strengthen  
the soul.

—JOHN E. TAYLOR.

# "ANGLERS' PARADISE" PLANNED IN CLINTON

The Board of Governors of the Elks Country Club, the Clinton County Fish and Game Association and the Western Clinton County Fish and Game Association, joint sponsors of the project to construct an "Anglers' Paradise" in Clinton County at the Elks Country



Dry fly fishing on Cumberland county's Yellow Breeches Creek, just below Barnitz' Mill.



Fine trout water on the Big Bushkill Creek, Monroe county. (Highway route 402).

Club on Young Women's Creek, see the completion of the Auxiliary Fish Hatchery near at hand. With the completion of the project, western Clinton County is expected to become one of the best fishing areas in the state.

The \$17,854 hatchery will stock over 50,000 trout each year. It was approved by WPA heads on Sept. 2, 1936, and after several delays, was begun on May 3, 1937. A four foot dam has been constructed across Young Woman's Creek at the clubhouse to impound sufficient water for five rearing ponds, which are arranged in a series and especially designed to care for the fish fry as it is received. The fish are transferred from pond to pond as they grow. The State Fish Commission inspected the lay-out and approved the rearing of 100,000 trout at the new hatchery, and through the co-operation of R. P. Tanner, superintendent of the federal hatchery at Lamar, 40,000 of the Elks Club trout are being held there until the project is completed, and the feed for the fish is being paid for by the Clinton County Fish and Game Association. The rearing ponds have stone walls and the dam is of stone.



## MAYFLY NYMPHS

(Continued from Page 3)

ready, and believing that the sub-imagoes would shortly reappear as spinners, I accordingly tied on the leader a Black Drake, then settled down to await the evening rise.

Slightly before the gong rang, the trout started taking the fly with avidity; and in a short time I caught and returned to the water six nice trout.

Saturday morning was a repetition of the night before, in fact more so. The trout were now taking the Black Drake with savage determination. The first cast landed a trout about fifteen inches in length, and as it was rather severely hooked, I decided to keep it. Downstream at the big rock—one of my favorite places—a rather heavy fish rose leisurely and took the fly with a deliberate gulp that was good to see. By rather strenuous means, I turned him away from a clump of submerged brush, and having forgotten my landing net, Lou Kunkel standing nearby, promptly came to my aid. The trout was heavy, in excellent condition, so he was duly knocked on the head to join his companion in the creel.

Ten minutes after the project had opened, I checked out with the limit of two nice fish. "Dutch" Derr, who weighed the trout, kidded me awhile in Pennsylvania Dutch, then subtly turned the conversation to the name of the fly I had taken them on. Sensing his motive, I tried to switch the conversation back into its original channel; but the hints becoming rather broad, I finally succumbed and presented him with the bedraggled Black Drake. And so I left Spring Creek with Dutch's blessing and farewell:

"Cum witter Challie. De deutscher mus be en onner steche."

"Come again, Charlie. The dutchmen must stick by each other."

## TROUTING TOPICS

(Continued from Page 11)

### Acrobatic Rainbows

Although we do not personally rank the rainbow on a par with the brook trout, ounce for ounce, as a gamester, the rainbow trout exceeds both brook and brown when it comes to a picturesque display above the surface. No finer memory do we cherish of days astream or afiel than the acrobatic maneuvers of a two-pound rainbow taken in a fast swirl of water two years ago on the Kishacoquillas Creek in Mifflin county. Vaulting in a silvery flash to the 14 ginger quill dry fly, the fish hooked firmly and, simultaneously, it seemed, frenziedly drove its broadgirthed, black-spotted form from the surface, not in one leap but in a series of five. Literally, that gallant fast water fighter stood on its tail in its mad rush to shake the fly. Several subsequent lunges from the surface and fast underwater boring to rid itself of the hook followed, tending to exhaust it in a comparatively short time. The action and thrills provided in those few minutes, however, are without compare in trouting memories.

In the rainbow trout, we have the fly fish supreme, a ready comer to dry or wet flies, nymph or streamer, sensational in every sense of the word. To pass up white water and spots where the water flumes between giant boulders on streams where the rainbow occurs is to miss many chances at this grand game

fish from the Pacific Slope. Apparently water of this type is favored exceedingly by the gallant rainbow, the leaping trout of all. Many rainbows are taken each year on natural lures such as the angleworm, particularly early in the season, but if nature smiles and grants even a few sparse hatches of flies on opening day this year, seek this acrobatic marvel with your artificials. You'll find sport supreme and no mistake.

At the time of this writing, the Fish Commission is holding in hatchery ponds for spring distribution with a fleet of 26 modern tank trucks, approximately 500,000 brook trout, brown trout, and rainbow trout, ranging in length from 7 to 18 inches. Fine, well conditioned fish, they should provide Pennsylvania anglers with trouting long to be remembered during the coming season.

Tight lines should be in order for the clan of Izaak Walton.

## E. K. MORSE HONORED AT PITTSBURGH

Pennsylvania anglers are certain to feel keen satisfaction in the announcement that Edwin K. Morse, a Dean of Anglerdom in the Keystone State and pioneer in the great drive for trout stream improvement, has been paid the rare tribute of election to honorary membership in the Chamber of Commerce of Pittsburgh.

The magazine, *Greater Pittsburgh*, commented as follows on his selection:

In paying Mr. Morse the rare tribute of election to honorary membership in the Chamber of Commerce of Pittsburgh, the Chamber's board of directors at its last meeting expressed the feeling of deep respect and admiration in which Mr. Morse is held by the entire community. The following official correspondence is explanatory of the board's action:

January 5, 1939

Mr. E. K. Morse  
Standard Life Building  
Pittsburgh, Pennsylvania

Dear Mr. Morse:

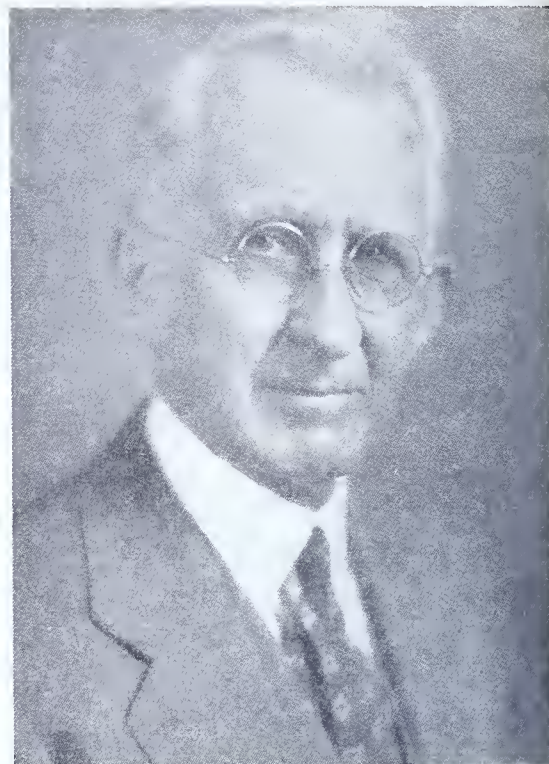
I have the pleasure and the honor to inform you that the Board of Directors of the Pittsburgh Chamber of Commerce, acting under authority conferred upon them by the By-Laws, unanimously voted at a meeting on December 29, 1938, to tender you an honorary membership in the Pittsburgh Chamber of Commerce.

The Chamber in its long history has only once or twice conferred honorary memberships. The Honorable D. T. Watson and the Honorable George W. Guthrie were made honorary members in 1907 because of the invaluable assistance they gave the Chamber of Commerce in bringing about the consolidation of Pittsburgh and Allegheny.

The honorary membership voted to you is in recognition of the distinguished services you have rendered to the community not only in relation to the promotion to flood control, but in relation also to other public matters too numerous to mention.

It is hoped we shall have the pleasure of your acceptance of the honorary membership now proffered.

Sincerely yours,  
FRANK C. HARPER,  
Secretary-Treasurer.



E. K. MORSE

January 7, 1939

Mr. Frank C. Harper, Sec.,  
Chamber of Commerce,  
Pittsburgh, Pa.

Dear Mr. Harper:

I feel myself highly honored to have been thought worthy of an Honorary Membership in the Chamber of Commerce.

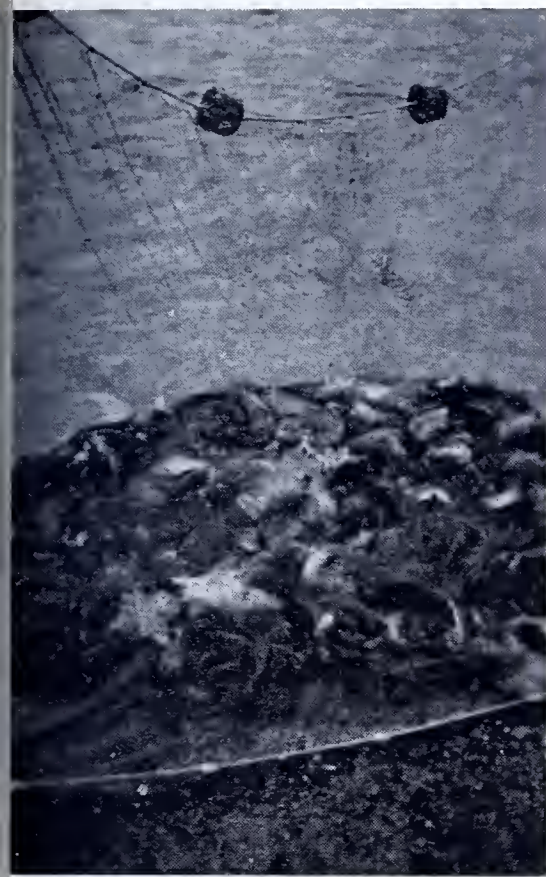
And in acknowledging and accepting this courtesy and distinction, I wish to express to your Board of Directors my very great appreciation of their kindness. I can think of no period in my lifetime when I could have more deeply enjoyed and appreciated this honor.

With kind regards, I remain,  
Sincerely yours,  
(Signed) E. K. Morse.

Mr. Morse has been a member of the Chamber of Commerce since July 25, 1901. He has been one of the most faithful members of various Chamber committees in all of which his counsel has been of great value. He was one of the original members of the Pittsburgh Flood Commission, which was organized in 1906, and made a survey whose conclusions facilitated the flood control works now in process of construction in this region by the United States Government.

Mr. Morse was born in Mahoning County at Poland, Ohio, on July 3, 1856. His earliest employment was in his brother's bridge works at Youngstown. Later the company sent him to Chicago. In 1887 he went to Sidney, Australia, and contracted for the erection of the super structure of Hawkesbury, the largest bridge in the southern hemisphere. In 1889 he returned to Pittsburgh where he has been engaged as a consulting engineer ever since. He has supervised important bridge constructions for the railroads, as well as for the Jones & Laughlin and Carnegie Steel Companies. He was transit commissioner for the City of Pittsburgh 1916-1920; also consulting engineer for the City of Pittsburgh in the study of flood control, wharf walls, and river tournaments. He was a member of the state Water & Power Resources Board under the administrations of Governor John S. Fisher and Governor Pinchot.





Netting legal trout from one of the ponds at Huntsdale hatchery preparatory to stocking.

## ASAPH CLUB BACKS STREAM IMPROVEMENT

A meeting of the Asaph Rod and Gun Club was held in the Asaph Grange Hall. Ways and means of improving the hunting and fishing in its vicinity were discussed. President Milan Cutler asked for volunteers to raise day old ringnecks and quail. Six men agreed to take 5 ringnecks and 3 men are to take 25 quail each making a total of 125 ringnecks and 75 quail.

Secretary Mahlon Northrop read a letter from the fish commission saying that in the future fish for stocking Asaph Run would be supplied to the Asaph Club and trout furnished for this stream in the future would be brown trout.

Warden Leslie Wood reported that many streams are being stocked with minnows. Mr. Wood commended the club on its attendance, there being 37 present.

Asaph Club was started in April 1938 and now has a membership of 79.

L. S. Moshier, chairman of the stream improvement committee reported that the work done on the right branch of Strait Run last summer is in good condition, but there is still work to be completed. Moshier asked for volunteers to do this work and about 10 men promised to help complete the job.

## McKEAN ADDRESSES FRAZER SPORTSMEN

Frazer Township Sportsmen's third annual banquet, held in Heidelberg Inn and attended by nearly 200 guests, proved the most enjoyable, beneficial and successful held in the Westmoreland county club's five-year history. Officials of the club had a brief but highly interesting program of speech making arranged for the event. Most interesting were the mes-

sages brought by two prominent officials of the game and fish commissions and a hearty plea for co-operation of sportsmen of all clubs was made by Jesse L. Humes, president of the neighboring Tarentum District Sportsmen's Club.

Rollin Heffelfinger, of Irwin, district game supervisor, outlined the functions, history and accomplishments of the game commission in a highly interesting and instructive address. Mr. Heffelfinger brought out that although Pennsylvania has most licensed hunters of any state in the union, over 650,000 last season, it is also most bountiful of the states in game. He traced the history of the commission and its fine work in propagation and conservation efforts. It was brought out that since 1913, only 800 deer were imported for stocking purposes but that, through providing food and other conservation efforts, the kill last season was over 100,000 alone without a harmful depletion of seed stock.

He also brought out that since 1915, when beaver were extinct in the state, only 1,200 were imported for stocking. In the past five years, thanks to conservation work, licensed trappers have netted a profit of over \$100,000 from this fur-bearing animal.

Mr. Heffelfinger made a plea for co-operation of true sportsmen in helping the state enforce the game laws and in combatting "human vermin."

"The sportsman who reports a game law violator isn't a squealer but is only helping protect his own and the interests of his fellow sportsmen by aiding the commission to control the two-legged type of vermin," he said.

Ralph Liphart, of Homestead, district game protector, asked all sportsmen who had licenses last season to send in their game report tags immediately, whether they had any bag or not, and avoid assessment of a \$2 fine which is provided by law. He thanked the club for the invitation to attend and commended the club and its officials on the fine progress made in the five years of its existence in brief but well pointed remarks.

Fred McKean, New Kensington member of the fish commission, gave some highly in-

structive figures on the work being done by his department. He made a plea for fishermen to send to the commission a report of their catch on a form they receive with their license so that the fishing solons might better cope with the needs of the various districts of the state in its stocking program.

Lem Schwarz, *News* sports editor, commended club officials on the fine administration they are giving the club and the fine progress the organization has made in its five-year history.

Mr. Humes invited members of the Frazer club to use the facilities of the Tarentum club and urged its officers to strive earnestly to increase the membership of its own group. "It behooves every sportsman to join a sportsman's club, whether in Tarentum, Frazer township or elsewhere," Mr. Humes said. "We're all working toward the same goal and the greater co-operation, the greater will be the results we achieve."

Dave Hannan filled the role of toastmaster in highly capable manner, with a steady flow of wit and humor keenly appreciated by the crowd.

Sixty-two prizes, all but one of them door awards, were presented to the guests. The booster prize, a fly rod and automatic reel, was won by John Motosicke.

## "BREAD BASKET" FLY

Every so often, we get inquiries about the "Bread Basket" fly mentioned now and then in the *ANGLER*. From J. M. Koval, Wyoming taxidermist and an ardent fly fisherman, comes the following information as to its construction. You will observe a fine catch of trout appearing elsewhere in this issue and made last season on the Lehigh with this fly by Mr. Koval and a companion. He writes:

"A 'Bread Basket' is tied as follows: barred rock hackle and quill body, gold ribbed. The body is tied a very heavy, thick quill."



The Williamsburg Sportsmen's Association were active in improving Clover and Piney Creeks, Blair county trout streams.





JOHN C. YOUNGMAN, President



M. C. MERRITTS, Vice-President



DR. C. A. MORTIMER, Secretary

# SPORTSMEN'S FEDERATION MEETS

## Conservation Education Stressed

An unprecedented attendance marked the annual meeting of the Pennsylvania State Federation of Sportsmen's Clubs held at the Forum of the Educational Building in Harrisburg on February 13. Pennsylvania is indeed fortunate in having a united organization such as the Federation, for through its interest, its support, and its cooperation Pennsylvania has become the greatest hunting and fishing State in the Union.

The Federation at present includes a membership of over 135,000 persons, and each year finds more clubs affiliating with this active statewide group. Motivated by unselfish ideals and principles, the Federation has from its very beginning promoted the highest type of game and fish legislation. Probably the most important general program ever endorsed by this group took place at the Conference just ended, namely, that of advocating the teaching of Conservation Education in all State Teachers Colleges, and in the public schools. Copies of resolutions, submitted by Dr. S. C. Boyer, of Johnstown, Chairman of the Educational Committee, will be sent to the Governor, Superintendent of Public Instruction, the Game and Fish Commissions, the American Legion, various civic clubs, etc.

The Resolutions Committee, headed by Merrill C. Merritts, of Altoona, was in session practically all day Sunday, the 12th, at which time it gave serious consideration to the 136 resolutions submitted.

Resolutions adopted and rejected by the Federation on February 13 are as follows:

### GENERAL RESOLUTIONS APPROVED

*Governor's Statement*—Thanking Governor James for the splendid statement he made as published in the February GAME NEWS and the ANGLER and pledging the Federation's cooperation.

*Game and Fish Commissioners*—Recommending that all Members of the two Commissions, including the Commissioner of Fisheries, be permitted to serve out the terms for which they have been appointed, unless any such persons have been politically active or have for some other reason disqualified themselves.

*Consolidation of Departments*—Opposing any consolidation of the Fish and Game Commissions with the Department of Forests and Waters.

*Federal Stream Pollution*—Endorsing a bill similar to the Lonergan bill in the last session of Congress.

*Sanitary Water Board*—Recommending that a separate independent board be established and directing the Federation to sponsor such a bill in the Legislature.

*Stream Pollution*—Approving the resolution adopted by the Izaak Walton League at its 1938 convention in Chicago.

*Pollution Compact*—Recommending to the Legislature the ratification of a proposed compact with neighboring states.

*Tattooing Dogs*—Endorsing the proposal and directing the officials of the Federation to draft a plan for submission to the Legislature.

*Gathering Nuts From Forests*—Recommending that the Department of Forests and Waters take steps to regulate the gathering of nuts from State forests.

*Dog License Fund*—Recommending that an additional appropriation of \$150,000 be made from the dog license revenue for the enforcement of the law to help stop the spread of rabies.

*Educational Committee*—The Federation's Special Educational Committee submitted a comprehensive report and recommendations which were adopted.

### GAME RESOLUTIONS APPROVED

*Hunting License Age*—Changing the requirements relative to accompanying minors under 16 (Section 316, paragraph (d)).

*Hunting License Issuance*—Endorsing the Game Commission's recommendation that the present system of issuing licenses be continued for two more years.

*Rim Fire Cartridges*—Recommending that the law be changed so as to prohibit the use of .22 and .25 caliber rim fire cartridges in hunting big game.

*1939 Grouse Season*—Recommending that the 1939 grouse season be a full thirty days.

*Varying Hares (Snowshoe Rabbits)*—Recommending that the season be the same length as the cottontail rabbit season.

*Woodchucks*—Recommending that the law be changed to permit hunting of woodchucks between the hours of 7 A. M. and 7 P. M. E. S. T., during the period from July 1 to September 15 inclusive; also that the law be changed to permit carrying rifles without being wrapped or in a case during the same hours between July 1 and September 15; and recommending to the Commission that the woodchuck season be fixed for said period only.

*Skunks*—Recommending that protection be removed from skunks.

*Waterfowl Shooting*—Recommending that waterfowl shooting be allowed during the open season to 5 P. M. instead of 4 P. M.

*News Releases*—Requesting the Game Commission to so arrange the sending out of its news releases so that the papers throughout the State will receive them at the same time they go to the Capitol Press Room.

*Game Food*—Recommending to the Commission that arrangements be made to buy its supply of game food earlier so that it will always be available when needed.

*Antlerless Deer*—Recommending that the law be changed so as to define an antlerless deer as any deer without horns or antlers, or a deer with horns or antlers not to exceed 3" measuring from the base of the burr; also approving the Commission's recommendations that landowners be permitted to hunt antlerless deer without permit when a special restricted season under permit is declared.

*License Tag*—Recommending to the Game Commission that the license tag be so manufactured that a part can be broken off and attached to a big game animal immediately upon killing.

*Browse Cutting*—Endorsing the present program of browse cutting for deer and recommending that it be done more extensively.

*Setting Traps by Use of Motor Boats*—Recommending that the law be changed to prohibit the use of motor boats to set traps.

*Appointment Members of Game Commission*—Recommending that the law be changed to read that no two members of the Commission shall be appointed from the same senatorial district instead of the present provision which stipulates that commissioners shall be so appointed as to represent the several geographical regions of the State.

*County Game Kill*—Recommending that the Game Commission provide space on the 1939 game-kill report blank so that hunters may indicate the counties in which the several species of game are killed.

*Opposing House Bill No. 55*—Opposing House Bill No. 55 which would prohibit shooting within 200 yards of the highway or buildings.

*Raccoons*—Recommending that the hunting of raccoons with dogs be allowed from November 1 to December 31, inclusive, and that trapping be permitted only from December 1 to December 31.

*Game Killed by Mistake*—The Federation endorsed the recommendation of the Commission that Section 710 of the Game Law be amended to require the payment of only 25% of the regular penalty for the killing of all birds or animals by mistake, with the Commission being granted the privilege of accepting the same proportion of the penalty in exceptional cases where true sportsmen for some good and sufficient reason were unable to make the report within the 24-hour period.

*Institutional Grounds*—A recommendation of the Game Commission that the law be amended so that when publicly owned institutional grounds are



# SPORTSMEN'S FEDERATION MEETS

posted against hunting, no one may legally hunt thereon.

**Taking Opossums with Lights**—A resolution from the floor recommending that the law be changed to allow the taking of opossums with lights in the same manner as raccoons may now be taken was adopted.

**Pittman-Robertson Act**—A resolution from the floor recommending that the President of the Federation appoint a committee of five to confer with the Game Commission relative to the campaign to secure the full appropriation from Congress under the Pittman-Robertson Act and the use of said funds.

**Fox Hunting**—A resolution from the floor recommending that that portion of Section 719 of the game law relative to special seasons for fox hunting in various counties during the period between April 1 and August 19 inclusive be amended to make it permissive rather than mandatory upon the Game Commission by changing the word "shall" to "may" was approved.

**Weasel Bounty**—A resolution recommending that the Game Commission increase the bounty on weasels to \$1.00 was approved.

**Possession of Game**—The Commission's informal recommendation that the law be changed to allow the possession of game legally taken for a period of sixty days after the close of the season, instead of the present thirty days without permits and six months additional with permits, was adopted.

**Use of Rifles Five Days Before Deer Season**—The Commission's informal recommendation that the clause in Section 501, sub-section (a) which prohibits the use of rifles to hunt game of any kind during five days preceding the open season for deer be eliminated was adopted.

**Refuges Maintained by Sportsmen**—A recommendation of the Game Commission that provisions be added to the game law so that sportsmen, in cooperation with landowners, may establish refuges which will have the same protection as State Game Refuges, when legally posted, was adopted.

## GAME RESOLUTIONS DISAPPROVED

**Red Foxes**—A recommendation that the red fox be placed on the bounty list was tabled.

**Controlled Burning**—A resolution recommending that the Game Commission make some experiments on State Game Lands with controlled burning to determine whether such burning is advantageous to game or not was rejected.

**Carrying Certain Firearms at Night**—The recommendation of the Game Commission that it might be wise to prohibit the carrying of .22 calibre rifles at night, except when wrapped or in cases, was rejected.

**Woodchucks in Luzerne and Carbon Counties**—A resolution offered from the floor to allow the taking of woodchucks with dogs and by digging them out of their dens in Luzerne and Carbon Counties was rejected because the Resolutions Committee had adversely acted upon the same resolution.

**Non-resident Hunting License Fee**—A resolution from the floor that the non-resident hunting license fee be increased from \$15.00 to \$25.00 was rejected.

**Employment of More Deputy Protectors**—A resolution from the floor recommending that more Deputy Game Protectors be employed during big game season by transferring such officers from small game counties to big game territory and utilizing penalties collected from deer and bear hunters to pay for such additional service was defeated because it had been adversely acted upon by the Resolutions Committee.

**South Mountain Deer Herd**—A resolution from the floor recommending that the entire South Mountain belt be set up under special rules and regulations as a large research and controlled demonstration project was defeated.

**Steel Traps**—A resolution to prohibit the use of steel traps larger than "0" size between April 1 and December 1 was defeated.

## FISH RESOLUTIONS APPROVED

**Waterdogs**—Recommending that the fish law be changed to permit the issuance of permits to spear waterdogs under the direct supervision of fish wardens.

**Minnow Seining**—Recommending that the fish law be changed to prohibit seining for minnows in trout streams.

**Uniforms for Fish Wardens**—Recommending that the Fish Commission supply its wardens with uniforms.

**Spring Creek Project**—A resolution opposing the establishment of further restrictions governing fishing in Spring Creek; also opposing further extension of that project.

**Spring Creek Project**—Recommending that the Fish Commission provide more comfort station facilities at the Spring Creek Project.

**Signing Fishing Licenses**—Recommending that the fine for failure to sign fishing licenses be reduced from \$25.00 to \$2.00.

**Sunday Fishing**—Recommending that the Sunday fishing law be clarified so as to permit fishing of all kinds under the same restrictions as apply on week days.

**Film Library of the Fish Commission**—Recommending that the film library of the Fish Commission be enlarged and more films be made available.

**Pickeral Fishing Through Ice**—Recommending that the law be changed so that no fishing for pickeral through the ice shall be permitted except in counties where the organized sportsmen request it.

**Fish Commission Set-Up**—Recommending that the Fish Code be completely re-drafted along the lines of the Game Code, Commissioners to be appointed for staggered terms and the administrative head to be selected by the Commission instead of being appointed by the Governor.

**Nets**—Change the law so as to require special permits for the possession and use of all nets other than landing nets.

**Large Trout in Spring Creek Project**—A resolution offered from the floor recommending that the Fish Commission modify its rules governing fishing on the Spring Creek Project so that large trout may be removed through the use of weighted lures was adopted.

**Fish Wardens' Salaries**—A resolution from the floor recommending that the salaries of fish wardens begin at \$1200 and be increased to \$1800 at the rate of \$100 annually was approved.

**Bait Fish**—Reducing the number of bait fish that may be had in possession in any one day to 25 and making it unlawful to seine for bait fish in public fishing waters.

**Bait Fish for Sale**—Making it unlawful to sell bait fish or fish bait taken from public fishing waters.

## FISH RESOLUTION DISAPPROVED

**Endorsing Fish Hatchery Production**—A resolution offered from the floor commending the Fish Commission for its production at the hatcheries was rejected because it had not been presented to and recommended by the Resolutions Committee.

At the close of the Session nominations were made for officers for the ensuing year. John C. Youngman, of Williamsport, Vice-President of the Federation, was elected President; M. C. Merritts, of Altoona, Vice-President; and Dr. C. A. Mortimer, of Wilkes-Barre, Secretary-Treasurer. Judge Grover C. Ladner, who for years headed the Federation, declined to run again. However, those who know the Judge will readily understand that his interest will continue just the same, and his experience and advice will be a helpful influence in furthering the program of the Federation in the future.

## FLYROD POINTERS

"Any enthusiastic trout fisherman is aware of the fact that a good rod is worth its weight in gold. And generally it is guarded and cared for in a diligent and careful manner. The crux of the matter is that a good rod, one that is the correct weight and action to suit one's fancy, is over one-half of the enjoyment derived from trout fishing. No wonder then that the angler who owns a rod that conforms to his whims, guards it lest the wife use it for beating carpet or other household duties. It is sometimes difficult to obtain a rod of this kind—any old pole will not do for the fisherman who takes his sport seriously," writes "Isaak Walton, Jr."

This leads up to the point that it is possible to own a rod which will meet his requirements with very little expense and a few hours' effort which can be made quite interesting. And now is an excellent time to do the job. Some anglers lean to the idea of a very limber, wimpy-wimpy action in a rod. Others are quite the reverse. In fact, there are extremes in both cases. However, it has been proven

time and time again that the majority of the rods with extreme action will not hold up under the strain and generally in the end will break. A medium stiff rod with some action and plenty of backbone will be found to answer the purpose for all-around fishing.

Rod manufacturers have largely gotten away from the idea of putting out rods with too much action in them. There were too many complaints of broken rods, so it was necessary to do something to remedy the situation. Stiffer rods, with no more weight were offered and this type appears to be meeting with universal favor among sportsmen. They have discovered that the line and flies handle much easier and the danger of breakage has been greatly lessened.

## TROUT TAGGING PROGRAM FOR KETTLE, SPRING CREEKS

Valuable data as to the best time for planting trout as well as information as to their growth and migration after planting is anti-

cipated by G. L. Trembley, Assistant Professor of Fish Culture at Pennsylvania State College, and the Fish Commission following inauguration of a trout tagging program on Kettle Creek, Clinton county, and Spring Creek, Centre county, two of the outstanding trout streams this year.

An article by Professor Trembley, explaining the program in detail, will appear in the April issue of this magazine. The cooperation of Pennsylvania trout fishermen, he points out, will be vital to the success of the experiment.

## OUT FISHIN'

A feller isn't thinkin' mean,  
Out fishin';  
His thoughts are mostly good and clean,  
Out fishin';  
He doesn't knock his fellowmen,  
Out fishin';  
Or harbor any grudges then;  
A feller's at his finest, when  
Out fishin'.

—EDGAR GUEST.



## PROGRAM FOR BOYS AT PLEASANT GAP

The regular monthly meeting of the Pleasant Gap Sportsmen's Association was held in the Pleasant Gap Fire Hall, Centre county, on February 6. Plans were furthered for the shooting match held by the club on February 18 and also for the construction of a permanent rifle range near the Pleasant Gap baseball diamond. The club wishes to take this means of thanking Ray C. Noll for his generous offer of a piece of land for this purpose.

A report was also received on the activities of the Future Sportsmen of Pleasant Gap group. This club has a membership of thirty-six boys between the ages of ten and fifteen years. This group is divided into two classes. Those from ten to twelve are instructed in conservation and sportsmanship by James Biddle and Cloyd Sunday. Those from twelve to fifteen are instructed in the same fundamentals by George Margarel, Jr. This group with the aid of some members of the senior organization has distributed thirty bushels of corn throughout the local game land and also constructed food shelters for same.

## PLAN IMPROVEMENT OF CENTRE STREAMS

At the recent meeting of the Port Matilda Sportsmen's Association the following officers were elected for the coming year:

President, Jerry Sager; 1st vice president, Howard Thomas; 2d vice president, George Rhule; secretary, C. Paul Zeigler; treasurer, A. Q. Williams; board of directors, O. C. Spackman, C. A. Smith, Cliff Sigel, A. B. Bennett, Morris Davis, and Fay Wallace as the member representing this association at the County Federation meetings.

The newly elected president outlined his program for the sportsmen in this section, which included the raising of game birds for distribution in local cover and the improvement of various creeks nearby for stocking of brook trout and pickerel.

## WEST CLINTON SPORTSMEN DINE

Nearly two hundred members and guests attended the banquet held by the Western Clinton Sportsmen's Association at the Elks Country Club to initiate the membership drive for 1939.

Speakers included: S. C. Castner, of Williamsport, of the board of game commissioners; S. J. Truscott, of Dalton, and H. E. Weber, of Philipsburg, of the board of fish commissioners; R. P. Tanner, superintendent of the federal fish hatchery at Lamar and F. F. Marshall, of Lock Haven, chairman of the central division of the State Federation of Sportsmen's Clubs.



John Noviset of Clymer "ready-to-go" on opening day last season.

## STONEBORO CLUB ORGANIZES

On January 30, at Stoneboro, Mercer county, a meeting of the sportsmen of this district was held and during the evening a permanent organization was completed as follows: president, Thomas Brennan; vice-president, Roy

Blackman; secretary, Dr. D. C. Stewart and treasurer, J. B. Straub, all of Stoneboro.

Leading members and officers of the Mercer County Council, together with game protector Norris and the writer were in attendance and helped perfect the organization.

## CLINTON SPORTSMEN ADOPT RESOLUTIONS

The Clinton County Fish and Game Association and the Western Clinton County Sportsmen's Association, at a meeting held in the Clinton County Court House, favored woodchuck hunting from 7 a. m. to 6:30 p. m. in that season; objected to carrying a .22 rifle after nightfall when it would interfere with the man making a round of traps after dark; approval of penalties of 25 per cent on large, and 40 per cent on small game killed by mistake; favored a request for funds for mine sealing; suggested that hunting coons with dogs be permitted from Oct. 15 to Nov. 1, and that trapping be permitted from Nov. 1 to the end of the coon season, and passed resolutions for the reduction of the fine for hunting after 5 p. m. to \$5; that the Sanitary Water Board be separated from the State Department of Health, with the funds kept separate and that John C. Youngman of Williamsport be appointed prosecutor for the water board, and passed a resolution that in any future deer season found necessary, any deer killed must be tagged at once; only six deer to be killed by a group, the party breaking camp at once when six have been secured; that the deer season be limited to two days, and that if five deer are killed, the members hunt only as individuals to kill the sixth deer.

## TIOGA SPORTSMEN ELECT ROBY HEAD

Fifth-three members of the Tioga County Consolidated Sportsmen's Association convened at a buffet supper at the Horse Show



Shipping building, Spring Creek project, Centre county.



nn, discussed pending game legislation and elected officers for the new year.

Cody Roby, of Morris, was elected president of the association.

Others officers elected were: Ed. Russell, Mansfield, vice-president, and John Crooks, Antrim, secretary and treasurer.

Resolutions were adopted for presentation at the annual convention of Pennsylvania Sportsmen's Federation, held in Harrisburg in February. The resolutions were as follows:

Urging the Pennsylvania General Assembly to establish a buck deer season of two weeks next Fall; urging the establishment of a second rabbit season from December 15 to January 15, following the close of the regular season; placing a \$2 bounty on red foxes; causing the open season for trapping to extend from October 15 to February 12 and making it legal to take bait fish on Sunday.

The following clubs were represented: Morris, Blossburg, Little Marsh, Tioga, Long Run, Mansfield, Asaph, and Nessmuk Rod & Gun Clubs. The Nessmuk Club was host to the County Association.

## MELLOTT HEADS JUNIATA CLUB

The Juniata County Sportsmen's Association, an organization that has in one year grown from a small group of conservationists, fishermen and hunters to a club of 350 men from every section of the country, met recently and installed officers for the ensuing year.

Leroy Mellott, of East Waterford, was named president with the other officers including vice-president, Thad S. Jamison, McAlisterville; secretary-treasurer, Francis Cooper, Spruce Hill, and board of governors, Nevin McCaban, G. P. Martin, Preston Zeigler, Edgar Shearer and Cummings McNitt.

## JOHNSTOWN BANQUET ATTENDED BY 500

More than 500 Cambria County sportsmen cast aside their guns and fishing rods to gather together for an evening of enjoyable fellowship at the 27th annual banquet of the Johnstown Sportsmen's Association.

Interspersed by a varied program of humorous and serious talks, musical entertainment and motion pictures the banquet served in the Masonic Temple was believed to be the best in the history of the organization.

Despite the fact that the program continued for nearly five hours the huge crowd at no time lost interest or became tired. Dr. J. D. Keiper as toastmaster conducted the program in rapid-fire order and very little time elapsed between the many varied presentations.

As guest speaker of the evening C. William Duncan, columnist for the *Philadelphia Evening Public Ledger*, gave an interesting and humorous talk on notables in the sports world.

C. A. French, Pennsylvania fish commissioner, in brief remarks praised highly the work accomplished by the organization during the last year especially for the large project for the improvement and establishment of a "fishermen's paradise" on the South Fork of the Benscreek. The commissioner guaranteed

the organization that the commission would cooperate with them in stocking all of the local streams with trout for the coming season.

"Unless some uncontrollable acts of nature intervene during the next two months, the coming trout season should be the best in the history of the state," French predicted. He said the commission will stock thousands of trout in every approved stream in the state in one of the largest restocking programs in recent years.

Interesting motion pictures of the journey of the last raft down the Susquehanna River were shown by Leo Luttringer Jr., chief of education of the Pennsylvania Game Commission. Majority of the pictures were taken personally by Luttringer while a passenger on the raft. He was on the raft when it struck the Muncy bridge and seven persons lost their lives.

Miss Claire Anderson, "sweetheart of Johnstown High School," scored another hit with her routine of toe and acrobatic dances. Students of Dale High School, under the direction of Marvin Eshelman, music supervisor, presented a fine program of vocal and instrumental numbers.

Rev. Roy J. Meyer, pastor of Trinity Lutheran Church, gave the invocation.

At the speakers table were: W. W. Campbell, George Goebert, Ralph Longwell, Assemblyman Walter E. Rose, L. B. Aschom, Leo Luttringer, Dr. Arthur M. Stull, C. William Duncan, Leo Akers, president of the association; Dr. J. D. Keiper, Assemblyman H. G. Andrews, E. P. Stone, Dr. E. C. Boyer, Judge Ivan J. McKenrick, Joseph E. Shreve, Harry S. Bender and Rheon C. Hassell.

## MONROE—PIKE

Willard L. Quick was elected president of the Monroe-Pike Sportsmen's Association for his third consecutive term during one of the most successful annual meetings in the history of the organization.

A series of proposed changes to the game and fish laws as recommended by both the fish and

game commission and also by the United Sportsmen's Association were the subject of the major portion of the discussion.

Dr. C. B. Rosenkrans was named chairman of a committee to make up a sportsman's display representing Monroe and Pike counties and their fish and game facilities at the National Sportsmen's Show in New York City.

Other officers and directors elected include: Russel E. Scheler, 1st vice president; Dr. C. B. Rosenkrans, 2d vice president; Herman Barlieb, 3d vice president; Aman M. Barber, secretary; Russell E. Jones, treasurer; E. G. Ritter, chaplain.

These are the directors: Charles E. Ross, Dutch Snyder, Northampton county; Bert Price, Rufus Went, Lehigh county; Ralph Turn, Pike county; I. W. Edinger, P. J. Shumaker, Emmett Bensley, Reginald S. Worthington, Clarence Hissinger, E. G. Ritter, Easton; Dr. Floyd Shafer, A. P. Snyder, Edgemere; George Costenbader, William Schoonover, M. V. Schoonover, Dr. J. M. DeKay, Harry Bertholf, A. S. Phelps, New York state; John Frantz, A. P. Sansenbach, John Barrier, Thornton Raney, Frank Misserle, Walter Shimer, Luther Keller, William Boening, George Becker, Frank Decker, Willard Price, Charles De LaBarre, Robert Grimm, Bucks county.

## MOVIES AND TALKS FEATURE MEETING

The Mountain, Field and Stream Club of Roxbury, Berlin, RFD No. 1, held its regular monthly meeting on January 26. The meeting was well attended.

Moving pictures depicting wild life and ways of conservation were shown by Randolph H. Thompson of the Pennsylvania Game Commission, who explained the pictures.

A number of string selections were presented by the Coughenour Sisters.

John Spenser, Somerset County Game Protector, was present and gave a short talk.

Rev. H. R. Ash, leader of the Junior Organization, made plans to distribute food in game sections.



"Sycamores"—An etching by Neville C. Davison, Jr. of the Benner Run Club.



## CENTRE SPORTSMEN PLAN YOUTH PROGRAM

The regular meeting of the State Centre Game, Fish and Forestry Association was held January 6 in the Philipsburg Elk's Hall.

The officers elected for 1939 were: President, Russell Lucas; First Vice-President, Ed. Loding; Second Vice-President, Dr. Claude Gette; Secretary, Maynard Henry; Treasurer, J. F. Kephart; and Board of Directors, Jacob Hurwitz, Dean Allison, Charles Johns, Charles Hartle and John Beals.

A summary of the activities of the association during the past year showed the association to have enjoyed one of the most active years in its history. Of the various committees, the fish committee was especially active. A report of this group showed 2000 rainbow trout, 5000 brown trout, 3400 brook trout (legal size), 5000 fingerling brook trout, and 10,000 minnows to have been stocked in the trout streams of the Philipsburg region during 1938. In addition 10,000 perch, 5,000 sunfish, 8000 catfish, 1200 pickerel and 1000 tadpoles or frogs were stocked in Black Moshannon Lake.

Another very active committee of the association proved to be the skeet field committee which held shoots each Sunday from September through the fall season. This not only aided the association by furnishing funds for the activities along the lines of conservation, but also attracted large numbers of persons to the Black Moshannon State Park where the shoots were held, both members and non-members being invited to attend. It is hoped that this activity may be continued during the present year.

One of the activities of the association planned for the coming year will be a series of meetings for all boys of the district who are interested in outdoor sports. These are to be held with the cooperation of Game Protector Elmer Pillings who has already taken an active part in the work. The meetings will supplement the work being done in the Philipsburg schools through the cooperation of Superintendent F. E. Ehrenfeld, an active member of the association, who has already organized a "Sport's Club" in the Junior High under the direction of Russell Lucas, newly elected president, the "Nature Club" under the direction of Secretary Maynard Henry in the Senior High, and a "Rifle Club" under the direction of Russell Lucas and Dean Allison, the latter a member of the Board of Directors of the Association.



A fine specimen of the Rainbow Trout.

## CARBON SPORTSMEN HEAR STOCKING REPORTS

A regular meeting of the Carbon County Sportsmen's Association was called to order by Mr. Seth Dodson, President of the Tri-Valley Club, who addressed the meeting with a few words of greeting and turned the meeting over to President Peter F. Murray.

Represented at the meeting were Beaver Meadows Gun and Game Club, Peter F. Murray; Bowmanstown Rod and Gun Club, absent; East End Rod and Gun Club, Michael Gazo; Lansford Sporting Club, absent; New Columbus Rod and Gun Club, Robert W. Steventon; Palmerton Rod and Gun Club, Ira J. Bleiler; Summit Hill Rod and Gun Club, Theodore Gormley; Tresckow Gun and Game Club, John Kirachew; Tri-Valley Outdoor Club, William Ritter.

Committee reports:

Legislative Committee—no report.

Fish Committee—Chairman George Watson reported many streams had been stocked and referred further comments to Fish Warden Custard who would speak later.

Game Committee—Chairman William Ritter reported the stocking of rabbits and other game throughout the county.

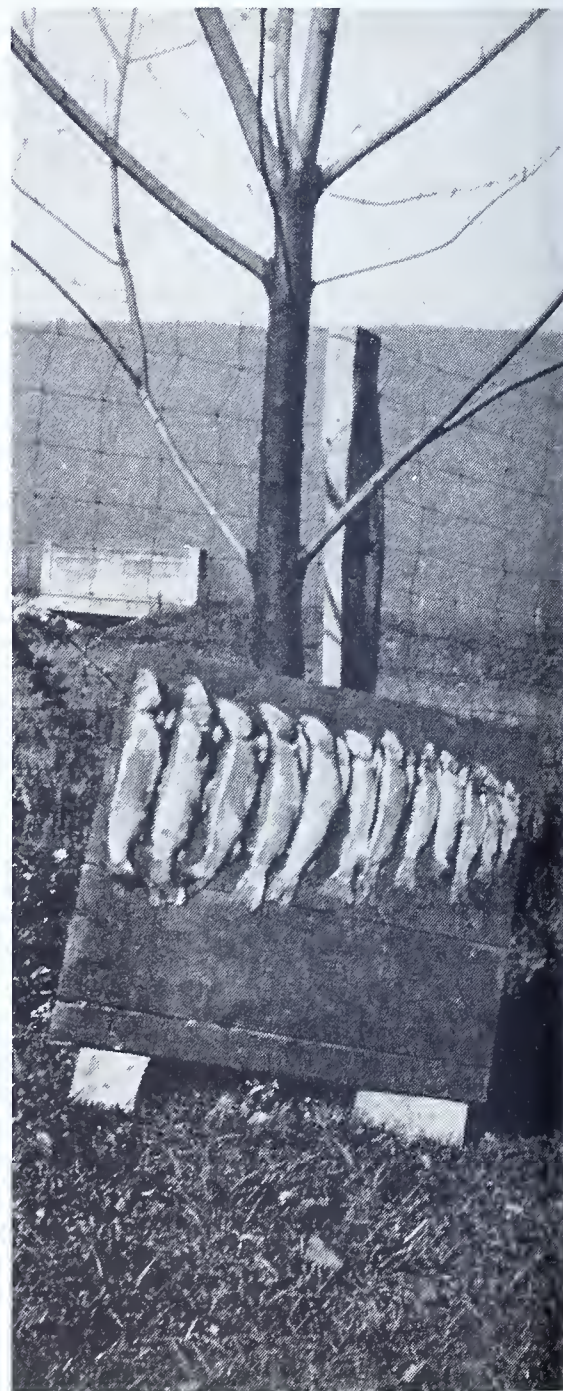
Auditing Committee—Chairman Ira Bleiler reported the treasurer's books and Secretary's records and found them in order. It was moved and seconded that the report be accepted. Motion approved.

Under the head of new business there was a discussion of the danger of shooting promiscuously with .22 calibre rifles. It was suggested that the newspapers be asked to take up a campaign on this problem.

Officers elected were: President, Peter F.

Murray; First Vice-President, Seth Dodson; Second Vice-President, Russell Hinkle; Treasurer, George Watson; Delegate, Ira J. Bleiler; First Alternate, Peter F. Murray and Second Alternate, Robert W. Steventon.

Harry P. Custard, Fish Warden for Carbon



These trout were taken by hand by Frank Van Gorder and Edward Mains, Elkland, Francis Clark and Orin Clauser, Osceola, in Long Run, Tioga county. Warden Leland Cloos, who arrested the quartet on October 30, reports their fines totaled \$140 plus costs.



Albino brook trout.







# Pennsylvania Trout Tales

By R. E. ANGST

**Q**UITE some years ago, before brown trout were found in any numbers locally, Pete and Socks persuaded me to drive them to Columbia County on a brown trout fishing trip. Knowing nothing about brown trout fishing none of the creeks produced results and we finally landed at a spot known as the Mud-Pan in Loyalsock Creek to fish for suckers. Bass were voracious and being out of season they became a nuisance. Finally, I had another vicious strike from what I thought was again a bass. Not caring whether I landed it or not I slowly walked backwards up the bank as I reeled it in while Pete stayed close to the water to net it. He made a swoop with the net and then let out a whoop. I called to him to stop acting crazy and release the damn thing. "Not this one, Buddy. This one got spots on". Thus I was introduced to my first brownie, a twenty-inch beauty.

Last year a certain local angler, if that term applies to one who fishes trout as he sleeps, was fishing in Cold Run, Schuylkill County. The day was warm and unproductive. Finally, he came to rest on a soft side of a bridge pillar. Letting his garden hackle drift down stream he dozed off. Sometime later he woke up, attempting to reel in the line he found it snagged to what seemed like a piece of waterlogged driftwood. It came in with not too much resistance and he nearly fell off the pillar when his eyes beheld what he had hooked. A twenty-six and one quarter inch brownie had that worm down his gullet. The rest of the boys are still trying for a bigger one.

For two seasons four of us had been trying to catch a certain whopper in Carbon County's Pohopoco. He had a half a dozen ginger quills and cahills in his jaws. His size was guessed from two foot to a yard and many were the stories of his prowess. Some of the boys even carried pistols to avoid injury should he attack. I happened to come to this creek on June 17 last season. A severe thunder storm had just muddied the creek too much for dry fly fishing. A lad of about fourteen was crouched behind a bush hanging over the pool where the big trout lived. In his hand was a throw line commonly called chalk line and he was intently watching the spot where it entered the water. I sneaked quietly up to him and asked what the idea was. He informed me that previously he had hooked a monster trout in that pool and lost it when his cane pole broke. Waiting ever since for the right conditions he was now trying him without a pole to handicap him. Since the trout had disdained all worms since that other occasion he was now trying out a new idea. He had rolled his hook and worm into a mud ball and waiting for the water to dissolve the mud and release the worm. Liking the idea I remained to see what would happen. Plenty happened pronto.

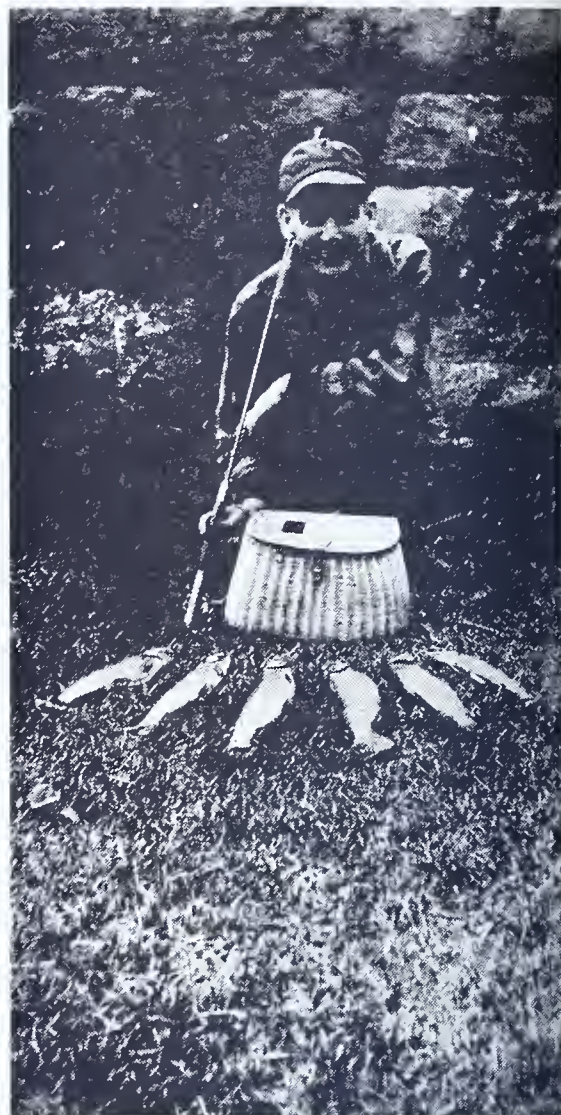
The line started to move slowly up stream and the kid jerked. During the war I saw three inch shells strike water. I thought for a moment one had landed in that pool. The boy gave a backward leap and landed flat. Before I could grab the line he was on his feet and going up the bank. Everything held and out in the meadow landed boy and brownie. The landing method wasn't very ethical but that

ball of mud wasn't so dumb. The trout measured a little better than eighteen inches.

Two seasons ago the usual gang and I were fishing the Paupack in Wayne County. As the stream had recently been stocked with rainbow trout we had lots of company. The large pool below the iron bridge especially intrigued all the fishermen. I made a dozen casts into it with a ginger quill. Rene, than which no better fly fisherman exists in these parts, made some twenty casts into the same pool with the same ginger quill. Both of us passed on. Some half dozen other anglers tried the same pool with the same results and then along came Mike.

Fishing being a little dull just then Mike decided he might as well stay right there. He picked a spot near the head of the pool and began casting, counting each cast as he made it and deciding to cast two hundred times before quitting. The point fly on his three fly cast was this same identical ginger quill. On exactly the two hundredths cast the fly flicked a tree and fell ten feet in front of his boots. There was a splash and ten minutes later Mike sat on the bank admiring a twenty-inch beauty in his creel.

One more and about this same Mike. It might be called ingenuity plus persistence but this one got away. We were fishing Slate Run in Lycoming County late in June. Mike came to the largest and deepest pool in the creek. Along one side was a high steep cliff running right down to the water's edge. From the other side the pool could be fished and Mike did so very thoroughly with results nil. Knowing such a pool must hold fish he decided to climb that cliff and take a look and see. After some scrambling he reached a strategic position overlooking the pool and about ten feet above it. Looking down his eyes beheld a sight never to be forgotten. Right below him lay the largest trout he had ever seen and flanking it on each side were two smaller but still large trout. The big trout would swim up stream a yard or two followed by his satellites and then the three would let the current slowly drift them back. Mike watched them for many minutes. Every once in a while one of them would rise to



Portage Creek, Cambria county, yielded this fine creel of brown trout, 14 to 17½ inches, to A. G. Anderson of Ridgway.

the surface, swirl and go down again. They were feeding on something but what. The only things in sight were small black flies like gnats. Mike tried every fly in his box, trimming some till little more than body was left but no go. Disgusted but loathe to leave Mike stayed to watch a while longer.

Soon a large dragon fly came down the stream just above the water. It passed over the big trout and as it reached a point about a foot behind him the trout swirled and in an



Trouting at Metzler's bridge on Laurel Hill Creek in Somerset county.



A black and white photograph showing a collection of fish, likely salmon, laid out on a light-colored surface. A fishing net is visible in the upper right corner, and some foliage is in the background.

## HOT WEATHER TROUTING A REAL TEST OF SKILL

Add a few more degrees and they become entirely inactive. Carry a small thermometer along and you can readily determine whether or not fishing is worth while. It is the combination of many small things such as this which tends to make late season troutng more difficult. With a little effort the majority of these intricacies can be overcome. Generally, I believe the greatest amount of time is given to the lures used in this fishing. Important as

As a matter of fact I visited Spring Creek just before the close of the special season at the Project. There were fewer people then and just as many fish. It took me all afternoon to get the proper combination. I don't know why I was so dumb but at about 7:30 I woke up and put on a black Bucktail and started hooking fish. Up to that time they were striking a Black Marabou short, just hitting the streamer part, not the hook.

"I used to see this snake crawl out on a log near the creek every day while I was fishing for trout, but every time I got near him he would slide back into the hollow part of the log. One day, I determined to wait for him at this spot which was on French Creek, near Knauertown, Chester county. I posted

Trainer: "Sssssh! That's my secret. The lions are waiting for me to grow up!"



Ted Dingle, superintendent at Huntsdale hatchery, displays some "samples" of legal size stocking trout.





Members of the Tioga Rod and Gun Club who helped stock the trout in Crooked Creek.



J. P. Borden signs for trout stocked in Crooked Creek, Tioga county, by the Tioga Rod and Gun Club. Mr. Borden's daughter at right was an interested spectator.

## GORDON, SHOEMAKER AT SAYRE MEETING

The annual meeting of the Sayre Sportsmen's Club was one of the best attended of any in the history of the club. The total membership of this live-wire sportsmen's association is now 811; present at the banquet were 653 members and guests.

Seth Gordon, Executive Director of the Game Commission, delivered a fine address on game conservation, while the Fish Commission program was ably presented by Enforcement Officer Myron Shoemaker of Laceyville. An excellent dinner was served in the modern Sayre High School Building by the high school Parents-Teachers Association.

## LANDS TWO FINE PIKE ON 5-OUNCE ROD

Tom Luckens of Pottsville, ardent disciple of Izaak Walton, has a prize fishing story with which he regales his friends every now and then and which he says occurred at Lake Carey last July, writes Jack Richards, of Pottsville.

Tom says he will never forget it, as he saw an angler there, Clarence Miller, of West Pittston, hook a 20½ and a 23-inch wall-eyed pike on a five-ounce flyrod simultaneously, and, after a terrific battle, land both of them with the assistance of a pal, Fred Roll, of Wilkes-Barre.

Telling the story, Tom says Miller and Roll were fishing, using a light six-foot leader, equipped with two hooks, and with "night crawlers" for bait.

After a week of catching nothing (and they were not the only ones) the two set out for their favorite spot, a rocky ledge about 150 feet from shore where the water was about 30 feet deep. They were closely followed by

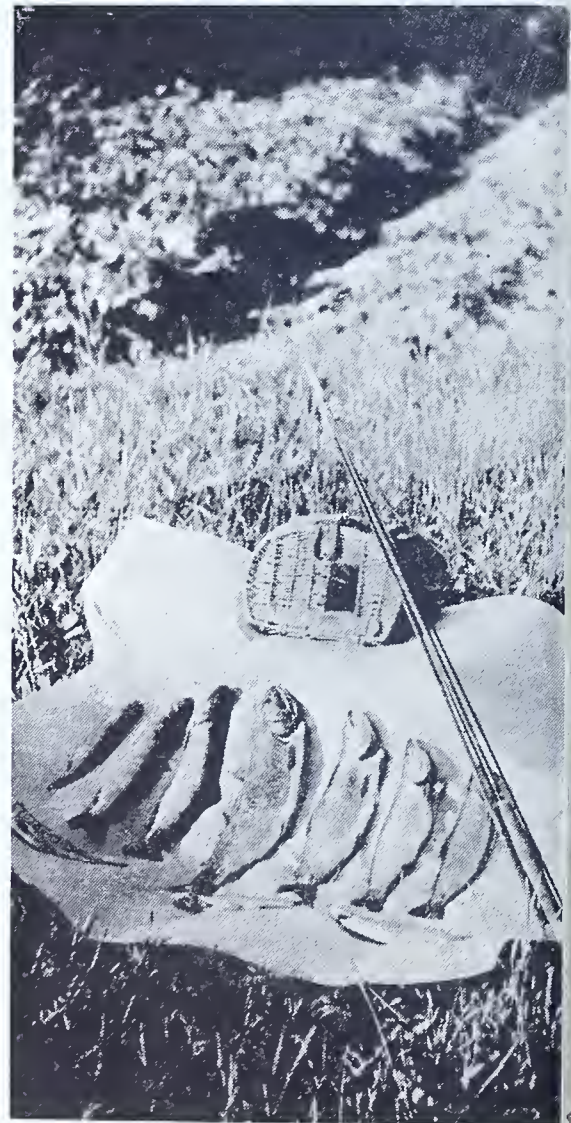
another boat carrying Tom and another invited "guest," H. L. Ritter of 407 Main street, Pottsville, who were to be shown this spot and the secret of catching fish.

It was sunset when the group anchored and "baited up" their lines. This was supposed to be the time for things to happen, but nothing did. Hours passed, and still nothing occurred.

About 10:30 P. M., Tom heard Miller say the magic word—"Strike." He turned and watched, having nothing else to keep him busy, and Miller prepared to catch whatever hit his bait. "This feels heavy," he said, as he slowly retrieved line; and then—"Boy I've got two on." Things started happening about that time. Roll immediately dropped his outfit in the boat and prepared to land these fighters. "Keep them moving and I'll go for the bottom one," said Roll as he made one, two, three thrusts with the landing net.

Fortunately, the largest one was on the bottom hook, and it was this fighter that helped keep all line tight between Miller and the fish on the top hook. True, it was luck that they finally landed them, but Miller's knowledge of tackle played a big part.

Tom, even yet, cannot understand how fast such news travels. Within a few minutes there were so many boats around the group that casting was practically impossible, and about 1 A. M., they went ashore.



A. G. Anderson of Ridgway took this fine catch of native charr from a stream in Forest county. Largest 13½ inches.

"Sonny, is your father home?"

"No, sir. Pop hasn't been home since Christmas when Mom caught Santa Claus kissing the maid."



## HEAR STOCKING REPORT

A meeting of the Indian Mountain Rod and Gun Club, of Kresgeville, was held at Green Gables Inn, between Kresgeville and Gilbert, with President Warren Gurskey, of the Inn, presiding.

An interesting report was presented by the chairman of the fish and game committee. During the past year the organization distributed in Polk township and surrounding districts 252 rabbits, 36 quail, 25 full grown English pheasants and 30 young pheasants, which had been raised by members of the club.

One of the main transactions of the meeting was the nomination and election of officers in which the following were elected: President, Howard Switzgale; vice-president, Elmer Kreger; secretary, Harry Young; assistant secretary, Franklin Zacharias; treasurer, Delbert Frable; chairman of fish and game committee, Leon Keller, and chairman of forestry and fire committee, Warren Gurskey.

The following committees were appointed by the president:

Entertainment: Chairman, Harold Christman, Warren Gurskey, Franklin Zacharias, Leon Getz, William Petkus, Delbert Frable and Rolland Kreger.

Membership: Wesley Shafer, Raymond R. Borger, Herbert Borger, Francis Feller, Warren Gurskey, Elmer Kreger and Amos Johnson.

The Indian Mountain Rod and Gun Club is one of the most active organizations in the interests of hunting and fishing in the west end section.



Placing log deflector in the Bushkill Creek, Northampton county.



Dam constructed on Cherry Creek, Monroe county trout stream.

## MILLERSBURG ANGLERS TAKE BASS AND WALLEYES

Bass and salmon fishermen in the Susquehanna River near Millersburg, Dauphin County, have been reporting some nice catches since the opening of the season, July 1, and a number of exceptionally large fish have been taken.

Lincoln E. Haine and son, Earl, Front street, caught four salmon and a bass, the largest wall-eye measuring 26½ inches and weighing 5 pounds 5½ ounces. The same day Thompson Haine and Edward Haine landed seven salmon and several days before Frank Dressler caught three. All of these fish were caught in "Salmon Hole," opposite Mt. Patrick.

Recently Edward Yeager and Geo. Wildsmith, of town, fishing in the Juniata pond, caught 11 bass and 3 catfish, two of the bass weighing 3½ pounds each. These were largemouths.

Jack Bentzel, of Millerstown, R. D., recently landed a 26-inch salmon, which weighed 5 pounds, while fishing in the Juniata river. One of five smallmouth bass recently caught in the Juniata river by F. Park Campbell, of Millersburg, measured 21 inches and weighed 3 pounds and 9 ounces. Bentzel's salmon and Campbell's bass were the heaviest reported caught in the Juniata, between Millerstown and Juniata Bridge, this season.

The three heaviest fish reported by Millersburg anglers so far this season were John H. Rumpf's 21-inch 4-pound rainbow trout; Lincoln E. Haine's salmon, and Campbell's bass.



Deflector installed by WPA labor under supervision of R. S. Sullenberger, Lancaster, in a Lancaster county trout stream.

Children cause lots of trouble by playing with matches, but so does Cupid.





Stocking Deer Creek, Clarion county, with legal size rainbow trout.

## FISHIN'S GOT DON

Fishing is generally known and recognized as great sport.

Many men angle for recreation, while others don't even have to cast for mere mosquito bites, writes Johnny Adamiak.

But in the case of Donald (Berkie) Berkheiser, Coal Township (Shamokin) Northumberland County, fishing has become an art.

Don, son of former Assemblyman Reginald Berkheiser, himself a veteran fisherman, says he owes a lot to his father for the secret of bringing home good catches. But, in appreciation of that splendid tutoring, Don made Reginald's face "red" on July 10th when he muscled in a 21-inch pike, and two others of lesser size as well as 3 bass. Mr. "Berkie" on the other hand, by way of unusually ill luck, brought back a bad mud story.

Don yanked out the big pike near New Berlin on Penn's Creek, Union county. His dad was several miles away and Reginald stormed at the darned way the creek got muddy instead of clearer as he waded up stream.

Spake the elder Berkheiser, "Don's got something there," and "he can sure pull 'em out. Besides he knows his plugs."

By that time Reginald began to scratch his arm, leaving at the least the impression that he had a bite.

Don achieved fine catches on all of his last five trips. He doesn't go to the same place twice which proves quite amply that variety offers no perplexity but merely the spice of life.

Don has had an inclination for fishing ever since his early boyhood. Well in the twenties today, he knows about everything worth while of the fishing game.

Donald tried the barbering occupation once; later planned to take up radio-engineering, but his biggest success, undoubtedly, is fishing. He is known extensively for his consistency in catches. And he doesn't tell fish stories, either, not many, anyhow.

His father, widely booked and experienced on angling as well as hunting, is one of the region's leading sportsmen.

Reginald has many creditable catches to his record. He has hooked pike as big as 30 inches and trout measuring 16 inches.

Recently he went out near Cocolamus and after something like 20 hours in the wilds came home with a frog. And he caught it on a hook, too. That can't be a fish story, if the author knows anything about his natural history.

So, with the Berkheisers it's plainly a Father Like Son moral. Fishing with them is an inherent and inalienable duty. Their equipment is worth sizeable money, but they say they've realized more enjoyment out of fishing than money can buy elsewhere. We might say:

Fishing got Don hook, line and sinker.  
Hunting got Dad lock, stock and barrel.

## NESSMUK CLUB HAS ACTIVE PROGRAM

New officers of the Nessmuk Rod and Gun Club of Wellsboro, include: president, M. S. Dartt; vice-president, Eldred Frost; secretary-treasurer, L. F. Corwin; membership committee, Joseph Davis, chairman, Harold Webster and Wallace Copp; by-laws committee, George Snyder, chairman, Ralph Kaltenbach, Max Dawson and C. E. Bennett.

A meeting was held on February 2 in the Firemen's Recreation Room in Borough Building with an estimated attendance of fifty members. Attending the get-together were attorneys, glass workers, merchants, bankers, dentists, doctors, and in fact men from practically every walk of life and all of whom were intensely interested in providing more fish and game for Tioga County.

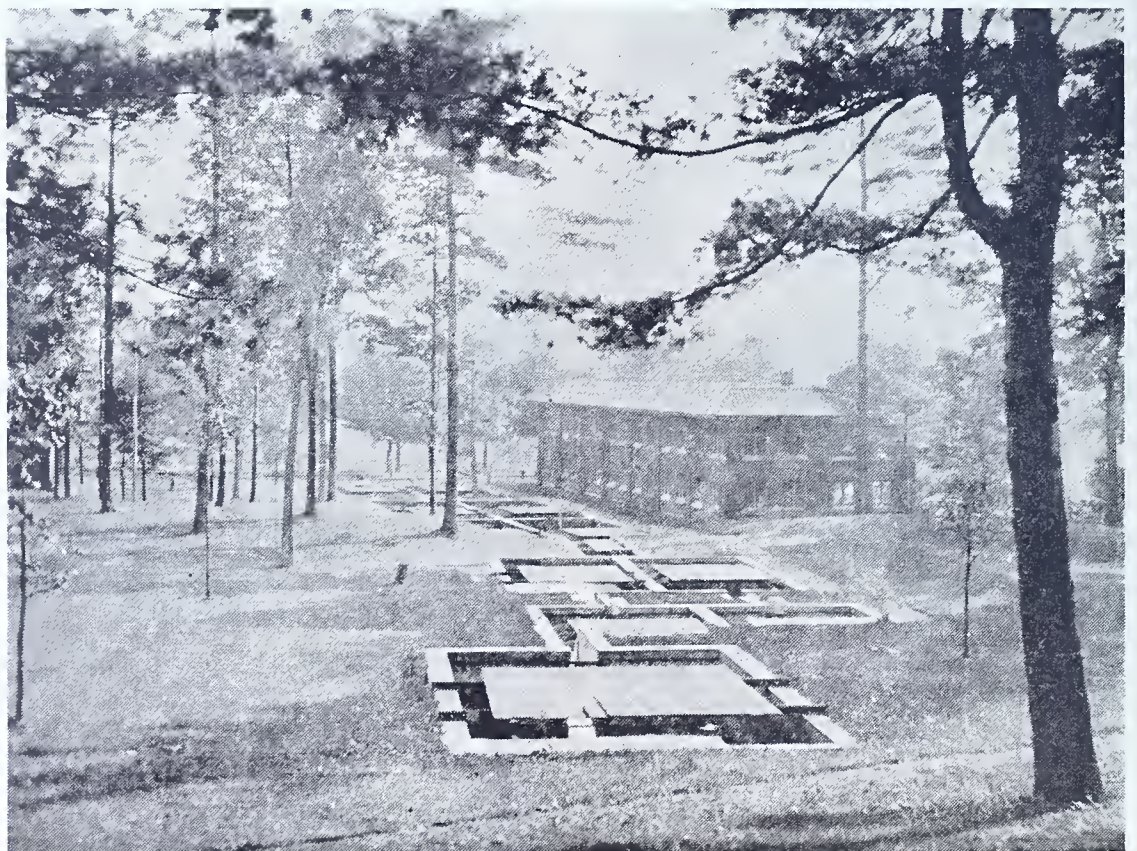
Reports were given by Leslie Wood and Ralph Kaltenbach to secure brooders and hovers for the raising of ringnecks and it was voted at this meeting to set a goal of a minimum of 1200 six weeks old ringnecks. Proper steps will be taken immediately to do this.

The Chairman of the Constitution and By-Law Committee, G. R. Snyder, reported that work is being done to make minor changes in existing Constitution and By-Laws.

Joe Davis, Chairman of the Membership Committee reports that work is well under way in securing a membership of 500 and if present enthusiasm is kept up for an additional two weeks the goal of 500 will have been reached by that time.

M. S. Dartt has consulted with Roy Wilcox about putting ringneck pens at Harrison Look-out so that members and their friends can view these birds as they are being raised.

Howard Steele and Joseph Davis reported that honorary memberships would be given to boys of High School age or less for the skin of one fox gray or black, two skunks, five crow heads, one big horned owl's head, one goshawk's head and one weasel hide. The



Some of the pond units and main hatchery building, Corry trout hatchery, Erie county.



valued fur will be returned after they are marked by Ralph Kaltenbach of the G. L. F. store on Jackson Street.

Leslie Wood and W. E. Smith are working on a plan to secure another place for meetings of the club.

## APPROVE REDUCING SIZE LIMIT ON BASS

On February 3rd, the Punxsutawney Sportsmen's Association held their regular meeting in the Associated Gas and Electric Building, Punxsutawney.

The present officers were elected for the ensuing year, Frank Harl, President; Edward Beezer, Secretary; and W. F. Dock, Treasurer.

Mr. Dixon, Chief of the National Youth Administration in this district, gave a very interesting talk on the activities of the boys and outlined a program for the construction of bird houses, also the use of their present work shop which is equipped with wood planes, jig-saws and plenty of hand tools. After some discussion on the matter this program was very readily accepted and a committee appointed to work on same.

There was also a lengthy discussion on winter game feeding.

The club also wish to thank the Board of Fish Commissioners for their final decision in returning the bass size back to nine inches.

At the conclusion of the meeting a very delicious lunch on the serve-yourself style was enjoyed by all.

## FISH STOCKING EXPERIMENT SURPRISE

An experiment in fish culture launched in Branchdale a dozen years ago and then forgotten, was revived this year in a manner that proved a surprise to all who had a part in it writes Jack Richards of Pottsville.

Back in 1926 or thereabouts, a number of mine caveins occurred in the Stone Row sections of the town—big, deep holes, some of them 30 yards wide, which filled with water.

The water did not seem to be very heavily charged with sulphur, but looked like pure mountain water and immediately some of the younger fishermen began wondering if fish wouldn't live in these mine holes.

The only dam where fishing could be enjoyed at that time was at "Thomas P.'s" Dam near Stein's Mill, and that was more than a mile away.

So these young fellows seined fish from this dam, carried them the mile and planted them in the mine holes—catfish, sunfish and minnows.

The experiment worked, the fish thrived and within a short time fishing was enjoyed almost on one's back yard.

But a few weeks ago, to remove the menace from the habitations there, it was decided to fill in these mine breaches and the work was begun.

Young lads of the town rallied to save the fish and as succeeding loads of rock crowded the fish into a small space, they went down into the breaches and seined out the descendants of the fish which had been planted there.

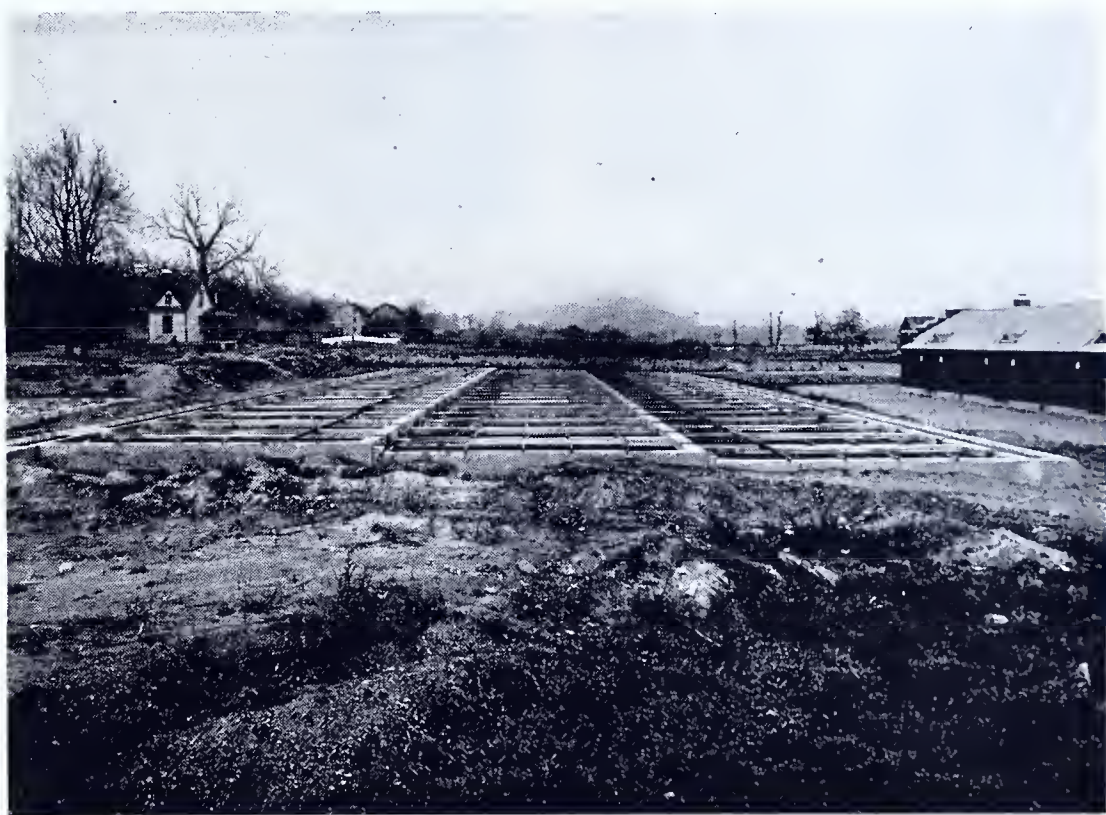
A couple of tubs full of fish were gathered by George Kilraine, James Fitzpatrick, George Thur, Steven Thur, Thomas Fitzpatrick and Peter Korutz.

Back to "Thomas P.'s" Dam the fish were taken.

They saved the fish, but now they must walk a mile to go fishing.



H. C. Smith of Monessen snapped this picture of Master Billy Sheppard, Smithton, trying his luck for trout with fly last season in Fall Run, Somerset county.



Trout holding pond units at Reynoldsdale hatchery, Bedford, county.

### BOARD OF FISH COMMISSIONERS

HARRISBURG, PA.

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## HERE AND THERE IN ANGLERDOM



A mid-winter catch that we don't hear of so often was made on February 13 at Duncannon, in the Susquehanna River by 10-year-old "Chick" Mutzabaugh, of Duncannon, according to Special Warden Maurice Koenig, of Harrisburg. Koenig reports that the Duncannon lad landed two carp on that date weighing 18½ and 12 pounds respectively. He also caught three suckers, ranging in length from 12 to 14 inches.

November is a favorite bass fishing month for George Bushkar, veteran Wyoming angler, who does most of his fishing in the North Branch of the Susquehanna River within 20 minutes drive of the public square in Wilkes-Barre, according to J. M. Koval, taxidermist of Wyoming (Pa.). Bushkar scored a fine catch of bass during the second week in November, five smallmouths, two 16 inches, one 18½ inches, one 17½ inches and one 20 inches in a day's plugging on the river, writes Koval. "Hope we'll see the photo of this catch in a near future issue of the ANGLER," writes Koval, "Just to show the boys that smallmouths from 2 to 4 pounds can be caught in the Susquehanna just one mile above Pittston."

Teaching of conservation in the schools is generally recognized as one of the most effective methods for advancing the cause. According to Warden M. E. Shoemaker, of Laceyville, J. F. Campbell, a teacher in the Towanda High School has been doing fine work along this line. "He is vitally interested in boys and conservation problems," writes Shoemaker, "and is one on whom we can depend for assistance at any time."

Favorite fishing water for catfish in Tioga county is Eldridge Pond, located one mile east of Sabinville. Last summer this pond, according to Warden Leland Cloos, furnished excellent fishing for catties. It covers about six acres in area, is fed by a cold spring and is the largest pond in Tioga County.

An ardent anglerette is Mrs. C. R. Anderson, wife of C. R. Anderson, Secretary of the Weedville Sportsmen's Club, writes Warden Robert J. Chrisman, of McKean county. Sterling Run in Cameron county yielded her an excellent catch of trout one day last season.

While fishing for wall-eyed pike in Tuscarora Creek one day last season, Dorothy Lonberger, of Boalsburg, Centre county, connected with a 23-inch wall-eye that weighed dressed four pounds. Lure used was a silver shiner.



A splendid catch of rainbow trout scored last season by Frank Dunkle of Youngsville in Brokenstraw Creek, Warren county.

Clifford Warren, of Sabinville, is one angler who thinks a lot of the hare's ear fly. He recalls at least one occasion on opening day when he landed the limit of trout on this fly in muddy water. The catch was made on Cedar Run, Tioga County.

One of the heftiest catches of carp to be taken in the Clarion Power Dam on the Clarion River was that made by Miles Joy, of Clarion, according to Warden Charles A. Wensel. In two hours fishing, he caught seven carp having a combined weight of 40 pounds.

A fine heavy-girthed brown trout, 21½ inches in length, 13½ inches in girth and tipping the scales at 5 pounds was taken on the Little Lehigh in Lehigh county last season by William Sorger, of Allentown, according to Warden C. Joel Young.

They don't store away the flyrod in autumn on the North Branch of the Susquehanna River, according to Warden Myron Shoemaker, of Laceyville. Just to prove himself that some fine bass could be taken via this method, he did a little experimenting, returning virtually all of the fish to the water. On an afternoon in

October, fishing fly and spinner, he landed eight fine bass in less than an hour and one-half. Another October afternoon catch was 19 bass over legal size, some of them 15 inches in length, while on still another occasion, he scored with 12 bass, the largest three and one-half pounds. This bass was taken on a trout fly with an eight pound test leader and no landing net. Edward Pickett, youthful Laceyville angler, scored a catch of six fine smallmouth bass late in October, fishing fly and spinner.

Wallace Dunlap of Tunkhannock landed a fine largemouth bass while fishing in Mud Pond near Lake Carey, Wyoming county. It measured 18 inches and tipped the scales at 3½ pounds.

October fishing on the Delaware River for walleyed pike was fine, according to Joseph Miskonis of Shenandoah, who writes: In three trips during the month of October, I have caught 12 wall-eyed pike in the Delaware. The largest measured 25 inches and weighed 5 pounds 14 ounces. The next largest fish measured 24 inches and weighed 5 pounds 8 ounces. All of these walleyes were caught on lamprey eels while still fishing.



# *Subconscious Songs*

by ROBERT F. KEAGLE

Winter is in complete retreat  
Before the warming springward sun  
And my heart is longing for the hills,  
The hills where new-freed trout brooks run,  
For in oft' recurrent dreams  
I hear the songs of those well loved streams.

They sing of fern, of seedling trees,  
Thrusting up to greet the spring,  
They tell of tufts of reborn green  
Where mosses to the boulders cling,  
They bring me lays of foam flecked pools,  
Of riffled runs, of water falls  
That blend their soft toned murmurings  
With notes of returning woodbirds' calls.  
They sing of trout, voracious trout!  
Rid of winter lethargy  
Darting, flashing, questing, feeding,  
Active now and ranging free;  
Then my spirits spiral up,  
To topmost planes they soar  
As in my dreams I reach the height  
That I am longing for . . . . .  
The flyrod springs within my grasp  
As it slices through the air  
My vision strains to the point of aim  
As the fanwing settles there,  
I feel the surge as the first one strikes  
And thrill as the struggle begins  
To determine at ultimate outcome  
Whether creel or freedom wins.

Seductively they sing to me,  
Those streams that haunt my dreams,  
Until the time of waiting almost unending seems;  
Waiting for the season that tarries overlong  
While I temporize my restlessness  
With a subconscious song.



Mr. Fisherman, It's up to You!

*If You Would Catch More Trout . . .*

KILL LESS



# PENNSYLVANIA ANGLER



COMMON SUCKER

APRIL 1939

TEN CENTS



# PENNSYLVANIA ANGLER

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## EDITORIAL

### STOCKING COSTS CUT WITH NEW TANK TRUCKS

**T**HIS spring will find the streams of Pennsylvania stocked to capacity with as fine brook, brown and rainbow trout as they have ever held. We are sure of a banner trout season as the fish stocked by our new tank-car system were in perfect condition when they arrived at the streams.

We have had hundreds of letters from associations telling of the wonderful condition of the fish when they arrived. We have had the new tank truck distribution in operation long enough to know that it will revolutionize our distribution program.

A comparative schedule for the last three years will prove what it has saved in the number of miles traveled by our fleet of 52 trucks.

1936—number of miles traveled—456,000 in distributing 129 tons of fish.

1937—number of miles traveled—525,000 in distributing 202 tons of fish.

1938—number of miles traveled—434,000 in distributing 255 tons of fish.

You will see that in 1938 we covered 91,000 less miles than in 1937 and planted 53 tons more fish. Of course all the streams stocked in 1937 were stocked in 1938 and many more as we are continually adding to our list of streams. This saving in mileage is made possible due to the fact that we can haul as many fish in one tank load as in three truck loads of cans.

We now have 21 tank trucks and more are being built at the present time.

One of the hazards of can distribution is the unexpected breakdown of a truck. Should this occur and be of such a nature as to require a long time to repair, it could mean the complete loss of the load of fish. With the new tanks it is possible to hold fish 24 hours without any serious damage as the little auxiliary pumps will run and keep the water aerated.

  
Commissioner of Fisheries





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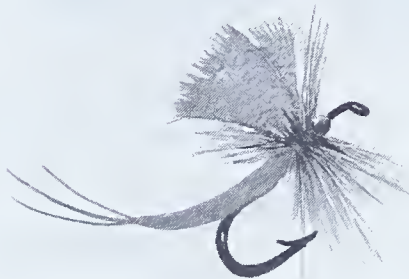
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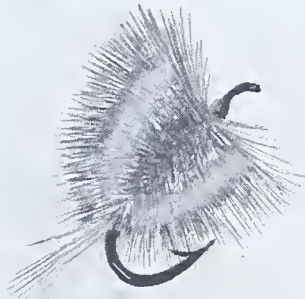
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E. L. PETERS  
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# TWELVE DRY FLY ACES

By CLAYTON L. PETERS

**K**NOWING that the study of trout stream insects dates back to the year 1496, when Madam Julia DeBerners compiled the first known treatise on the flies of that date and age, and directions for the tying of artificials, it is amazing to note the comparatively small number of fishermen who have actually taken an interest in this favorite food of trout, until recently.

James Ogden's book called, *Ogden On Fly-tying* and published in 1879, gives a very fine treatise on tying the various types of stream insects, and among them stands out very conspicuously the Green Drake, a predecessor of our Pennsylvania shad fly. James Ogden has been credited with introducing and tying the first floating flies about the year 1839.

Such men as Ogden, and followed by Major Hills, Pulman, Halford, Skues, Mary Orvis Marbury, LaBranche, Gordon, and all the others who have been pioneers in the study of the natural insects and their imitations, deserve a great deal of credit, because their efforts give the novice an opportunity to quickly learn the identity of the insects they encounter along our streams.

Today we have two schools of fly fishermen as far as fly construction is concerned. There are those who feel that an artificial must be as near a counterpart of the original insect as is humanly possible to produce. Then too, there are those who lean toward the impressionistic. The flies identified in this class are such successful patterns as the bivisibles, hackles, spiders,

and variants. If I were to classify myself, I am sure I should belong to the latter class, because I am prejudiced toward the bivisible and spider types of flies. Why? Simply because on repeated occasions I have had blank days turned into very successful ones by simply switching the various types of winged flies to bivisible or Palmer tied patterns.

When trout are feeding on the surface of a pond or placid pool and they refuse your winged offerings, try the short stubby type of spider or variant flies and note the results.

While there are many patterns of trout flies that will consistently catch fish, the above mentioned flies are very essential during the particular season when they appear on the stream, and with them in your fly box, few if any other patterns are necessary, unless the addition of a few fancy patterns such as the Royal Coachman and Wickhams Fancy.

All of the above patterns can be tied in Palmer or Bivisible patterns and although I am partial to this form of fly, I must confess I do not like several of these patterns, such as the Quill Gordon, Hendrickson and Green Drake tied in the conventional winged style.

A great many unsuspecting fishermen have been misled about the quality of dry flies. It should be known that the price and quality of a dry fly depends largely upon the quality of the material used in the manufacture of any article. For instance, let us look at the first fly in the accompanying illustration, the March Brown. This fly can be purchased in so many

different colors and makeups that it keeps one busy wondering whether the progenitors of this specie didn't have some strange alliance with its cousins of another description. Silk or wool is used for the formation of the body of the less expensive fly, but as these materials soak up water like a sponge they soon sink and require too much dressing.

Fur from aquatic animals or even land animals is far superior to either silk or wool for body material, and as the fur taken from the belly region of most animals is lighter in color due to the indirect reflected light on the lower parts of their bodies as compared to the parts over the back which receive the direct light rays, it is especially adapted to this purpose. The fur from Red Fox, Seal, Oppossum and Muskrat are very essential. These fur bodies are spun onto a piece of tying silk and in this way tied to the hook. More time is necessary to construct a body of this kind, but due to its translucency and wearing qualities it is far superior to the silk or wool variety. Quill is used for the darker bodied flies and properly manipulated will stand a lot of hard usage.

Hackles with a lot of web are quite useless for a well balanced, neatly dressed fly, and will not bear the weight of the fly in order to carry it in an upright position. Choose flies with stiff glossy hackles and you will find that very little dressing is necessary.

Wings are sometimes made of duck wing quills, starling quills, or the wing quills of other birds. Mandarin flank feather and gray barred Mallard drake feathers are used for wings on most of the better grade flies and seem to be suggestive of the wings of the natural insect in motion. This type of wing will stand more switching than any other type and although a trifle more expensive they are cheaper in the long run.

The following is the dressing for the plate of flies in the illustration.

## No. 1. March Brown

Body, Fawn colored fox fur; Hackle, brown with gray tied in at front; Tail, brown hackle tips; wings, gray Mallard breast feathers.

## No. 2. Hendrickson

Body, Fur from the belly of a red fox; hackle, rusty dun; tail, Mandarin; wings, Mandarin.

## No. 3. Quill Gordon

Body, Quill stripped from a peacock eye feather and ribbed with gold wire; hackle, blue dun; tail, blue dun; wings, Mandarin.

## No. 4. Light Cahill

Body, red fox belly fur; hackle, ginger; tail, ginger; wings, Mandarin.

## No. 5. Green Drake

Body, cream; hackle, barred rock dyed a pale yellow; tail, two or three strands from a

(Turn to Page 23)

## MAY FLIES

I have been asked repeatedly to name a list of flies that I consider best for our local Pennsylvania streams and with the fellows in mind who made the requests, I have prepared the following list of flies and dates of their emergence from the water. These dates however, will vary, depending on weather and stream conditions.

Name	Stream	Town	County	Date
March Brown	Clarks Creek	Tower City	Schuylkill	Apr. 30
Hendrickson	Rattling Creek	Lykens	Dauphin	May 3
Quill Gordon	White Deer Creek	Mifflinburg	Union	May 15
Light Cahill	White Deer Creek	Mifflinburg	Union	May 18
Green Drake	Penn's Creek	Coburn	Center	May 30
Red Quill (Male Hendrickson)	Gold Mine Creek	Suedsburg	Schuylkill	May 4
Little Marryat (Pale Eve. Dun)	Rapid Run	Mifflinburg	Union	June 10

## STONE FLIES

Early Brown Stone	Rattling Creek	Lykens	Dauphin	Apr. 15
Large Brown Stone	Penn's Creek	Coburn	Center	June 3
Yellow Stone (Sallies)	Penn's Creek	Coburn	Center	June 15

## CADDIS FLIES

Dk. Blue Sedge	Kettle Creek	Crossfork	Potter	May 30
Brown Sedge	Stoney Creek	Dauphin	Dauphin	July 15
Black Flies Ants				



# TODAY'S FLY LINES

By R. W. McCafferty

SEVERAL seasons ago I watched an elderly gentleman casting as gracefully as it has ever been my pleasure to witness. "Most likely expensive equipment," I mused. A little later I had a chance to inspect and cast with it, and it was not at all what I had expected. The rod was very old and whippy. The line was a braided silk casting line about 18 pound test.

I had heard of men casting with outfits of this type, but this was the first time I had actually seen and handled one. In the absence of something better I could have fished with this paraphernalia, but under all but the most perfect conditions it would not have been very enjoyable. In a wind I imagine it would have been nearly impossible. There seemed to be no shoot whatever and the line submerged the moment it touched the surface of the water, eliminating all except very short pickups. For average stream wet fly fishing it would suffice but for the average angler of today, that is a different story.

It really has not been many years since good lines and rods have been manufactured in America. Men used outfits such as I have just described not so much as a matter of choice as from one of necessity. Even a good level enameled or oil finish fly line was not available at a price to fit the average man's pocket book. However, the last few years we have taken great strides in line developments here in the United States. Line manufacturers have been giving the fishermen a highly satisfactory product but, there still remains a fly in the ointment. Many of the manufacturers have their own ideas as to the letter applying to a certain thickness. Some of the lines vary as much as .005 of an inch. When the manufacturers combine and standardize the letters with the thicknesses, we'll go places. Most of the better American lines I have "miked" have been fairly uniform in thickness and yearly they are getting better.

The primary idea is to get a line which, when you have 25 to 35 feet of line beyond the rod tip, will be heavy enough to bring out the action of the rod. If the line is too light it is just about impossible to bring out that action, therefore you cannot transmit any energy from the rod to the line. On the other hand, a line that is too heavy just eats up that energy instead of carrying it through to the tip of the line and into the leader. Because one manufacturer's line of say, size E may be the same weight of another's size C, it is unsafe to state definitely what size line will fit a rod of a certain action. Nevertheless, I recently saw several rods on which were marked the approximate sizes of line to be used on said rods. At least the rod companies are realizing how necessary a good fitting line is to perfect casting.

The angler is doing both the rod and himself a favor by making it his business to ascertain which is the proper line for his rod. He

has the choice of three line styles: first, a level line; second, a double tapered one; and third, the three diameter or triple taper. This latter line is more often referred to as a "Torpedo Head," a name derived from its torpedo like action in shooting through the air while casting.

## Level Lines

The level line is just what the name implies—of an even thickness its entire length. My favorite line for early spring fishing is a level one. At that time of the season I use Buck-tails and Marabou streamers and for these types it has always worked to perfection. Usually though, as one becomes more proficient at fly fishing he desires more and more the delicacy delivered by the double tapered lines. Do not understand from this statement that the level line is not a delicate implement. On the contrary, many men have developed their skill to

is necessary on our streams. The English chalk streams demanded long casts. The majority of our streams made these casts unnecessary and in many cases impossible. Because the lines were developed primarily for long casts, the manufacturers found the long tapers to be perfect for their conditions in England. As these imported lines were for years the only ones available to the anglers on this side of the Atlantic, these men labored long to make the lines fit our conditions. Many seasons passed before some enterprising persons discovered the value of a shorter taper. Subsequently the tapers of 18 feet were reduced to 9 feet. Today, for general fishing conditions, the short taper is the better choice in the double taper lines.

## Three Diameter Lines

Since I first mentioned these lines in a former article, I have received many inquiries regard-

## LEVEL LINE

## DOUBLE TAPER

the point where they can handle their level lines better than some others will ever handle the best of double tapers. That is one reason I have suggested to many beginners that they purchase level lines first and master casting fundamentals with that outfit. Later they will be in a better position to choose the proper tapered line.

The level line is also the very essence of economy. It is the cheapest of the three lines and a very satisfactory one for those who do not wish to invest too much money in a line. The original cost is very reasonable, a good grade costing in the neighborhood of \$2.00 for 25 or 30 yards. Both ends can be used alternately and if changed end for end every few fishing trips, it will last many seasons. In addition to that, as there is no taper in this line, the cutting off of a few feet from the ends periodically will greatly increase the line's life of satisfactory service.

## Double Taper Lines

The accompanying drawings of lines illustrate the principles of tapered lines. The small diameter ends of the double tapered lines for years delivered the acme of delicacy for the fly fisherman while the heavier line in the center brought out the action of the rods, making casting easier. In England, where these lines were developed, much longer casts were made than



INTERLACE SPLICE



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OVER-LAPPING SPLICE

ing them. Anyone who has not yet tried one has a genuine revelation in store.

In certain types of angling they help much in preventing fatigue. The weight in the head helps reduce materially the effort one must extend while fishing the large wind resisting flies and bugs which are coming into more use every season. Particularly on windy days, I would not want to fish with any other type of line. When first originated, many of these lines were made with a very heavy weight portion, which resulted in causing a slight splash until one learned the proper casting technique necessary to overcome that fault. Later lines, however, have changed that. Instead of the short, very heavy heads, manufacturers are now building that portion longer, but with a smaller diameter to make up the necessary weight. Consequently, these new lines possess the delicacy which made the double taper so popular. Draw-

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TIP FRONT TAPER WEIGHT PORTION BACK TAPER RUNNING LINE

## TRIPLE TAPER



# THE GREEN DRAGON

By CARSTEN AHRENS

**T**HERE'S a green dragon in my garden! One day last summer a friend, returning from a trip to Lake Erie, brought a dozen, little, black bullheads for my garden lily pool. None of them could have been more than an inch or two in length. They were ugly looking imps; made so, perhaps, by the long black feelers which streamed from the margins of their wide mouths. They made a striking contrast with the goldfish in the pool.

But the following morning, I could count but eleven black swimmers wriggling through the water. Before the day was over, another had disappeared. This continued; by the end of the week the school had been reduced to one perplexed bullhead. Then I happened upon the cause of the strange disappearances.

I was lying by the pool looking wonderingly at the water plants that undulated pennant-fashion in the slow current, when I saw the green dragon! It was clinging head downward to a water weed. So green it was that it seemed a part of the plant to which it had attached itself. Then as I watched, the last, lonely bullhead came swimming by. Swifter than sight, out shot the monster's lower jaw, which seems to work like a sliding pair of sharp pincers. It seized the fish from above, on either side of the back, and instantly started to chew toward the backbone. Now this may sound impossible, but, never-the-less, true: this dragon does not use the lower jaw for chewing, but for holding. It is equipped with chewing teeth which are not attached to this jaw. Nor do these teeth work up and down, as we're accustomed to having teeth work, but they work back and forth, crosswise!

Before I could interfere, it had slashed open and had killed my last bullhead, so I decided I might as well make a study of its table manners. The monster started where it had first gripped the victim, on the back near the tail, and chewed steadily toward the head. At intervals it would let the meal rest on a broad leaf just below, while with its forelegs and pincers-like lower jaw, it would "pick its teeth." Perhaps the skin of the bullhead would cover the points of the sharp chewing apparatus and force it to suspend operations until the mill was cleaned. At one time I thought it was too far away to be viewed clearly, so with a stick I forced the weed upon which it clung closer to the edge of the pool. But it was so absorbed in dinner that it apparently did not know any change had occurred. For almost an hour, fifty-five minutes to be exact, the meal lasted. Then it gave its chewing apparatus a thorough cleaning, using again the lower jaw and forelegs for the purpose. When it was through with its meal, it abandoned the victim, and well it might, for there was little left besides the skeleton, a few fins, and the long feelers of what had been a fine bullhead.

I decided to study this monster at a closer range. I found it to be almost three inches in length, with six long legs, huge compound eyes, and short pad-like structures for wings. Its lower jaw which could be moved with such lightning-like speed was three-fourths of an inch in length. The large abdominal cavity was lined with gills that took oxygen from the



Photo by Byron Chaplin.  
Water Babies.

The curious creatures above are the aquatic forms (called naiads) of the dragonfly. This species spends about a year in the water before it crawls out for its transformation. While in the water, the naiads live on any water animal that isn't too large or too hard-shelled. To become the piece de resistance of a dragonfly's meal demands activity alone on the part of the victim. One day I forgot to feed the two pictured above, so one ate the other!

water drawn into this chamber. The ability to expel water rapidly through the large opening at the posterior of the abdomen aided the creature in locomotion.

I placed it in a small bowl of water, and found that it would eat almost anything . . . that is, anything that moved. It refused to touch anything already dead. It seemed to be

governed more by sight than smell, and apparently anything that moved was made only for the purpose of supplying it with food. Never would it pursue its prey, but it would lie motionless until the unwary victim would swim by; then a vicious snap of the lower jaw . . . and it never missed! Although I kept it in captivity for over a month, it never contemplated a hunger strike. Insects, polliwogs, worms, a small crawfish, and minnows were devoured. One day I found two other dragons of the same species to which my bullhead-killer belonged, but the newcomers were smaller in size. Alas! the very next day I had to pronounce cannibalism against my charge, for the dragon had eaten one of his guests!

Tragedy in another form overtook the other dragon. Early one morning I found that it had climbed up a stick which extended from the bowl . . . Never before had such an effort been made. For an hour it hung motionless. Then gradually a new creature, wet and bedraggled in appearance, worked its way through a rent in the old skin. But for some reason or other, the dragonfly, though ridding itself of its old suit, could not free itself from the mask that covered its head. The outcome was obvious. Exposed to the air, the unremoved part grew grizzly hard, imprisoned and starved the insect, and death was the result.

All this while, the first dragon I had taken continued to eat and grow. I secured another school of bullheads, and it ate every one. And then one evening, several weeks later, it decided to change its ways. When I looked in the bowl the next morning, I saw its empty skin clinging stiffly to a reed which extended from the water,

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Snake-feeder

Photo by Byron Chaplin.

Although called by dozens of common names such as devil's-darning needle, mosquito-hawk, spindle, snake-doctor, etc., and frequently believed to be harmful, the intricately-veined creature pictured above (*Anax junius Drury*) like all dragonflies is not harmful in any way but extremely beneficial.



# TROUT CONDITION TELLS THE STORY

## Drought and Flood have Reduced Trout Forage in Many Waters

By ALEX P. SWEIGART



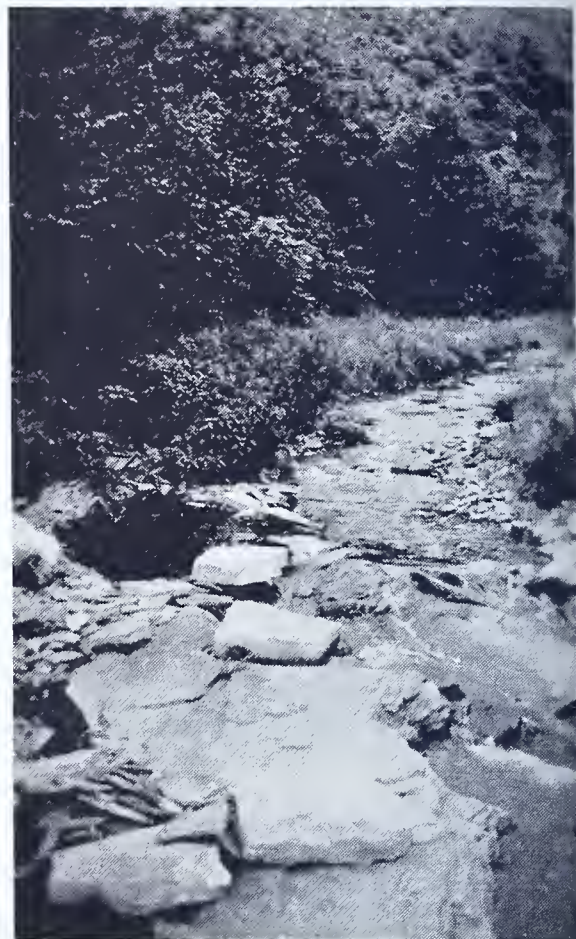
A Carbon county stream yielded this poorly conditioned brown trout. In length  $22\frac{1}{2}$  inches, it weighed only  $3\frac{1}{2}$  pounds.

**T**O THE early season trout fisherman, the angler who does most of his fishing during April, and may not visit the water again until next year, it would be difficult to visualize the condition of certain streams in one of the so-called dry months, August or September. Riffles that during early spring carried a surging current often appear half exposed to the rays of the sun. And, since it is a recognized fact in fish conservation that the ability of a stream to support trout or,

for that matter, any fish life, can be determined only when that stream is at its lowest ebb, the effect of eight successive years of drought on our Pennsylvania trout waters can be readily realized. There are streams in Pennsylvania, of course, that have withstood the effects of these dry years fairly well, Spring Creek and Penn's Creek in Centre county, for example, but generally throughout the state, the carrying capacity of waters for trout has been seriously impaired.

The ultimate effect of the disastrous flood of 1936 on our trout waters is open to question. While, it is true, the scouring action of the current in many streams seriously crippled the food supply, this same action served to flush out vast quantities of silt that had accumulated on the stream beds. Removal of this silt, which has long been regarded as seriously detrimental to trout streams, and formation of many pools suitable for trout through the action of the flood water may definitely be placed on the credit side of the trout stream ledger.

While extremely low water in a trout stream, coincident with sultry air temperature and strong sunlight may cause a drastic rise in water temperature, in many instances well over the 74 degrees Fahrenheit usually believed necessary to carry trout, this condition also serves in many instances to curtail seriously the supply of natural forage available for the fish. We may list essential trout food under four heads: (1) Minute crustaceans, such as the scud or freshwater shrimp, available to trout during the entire year; (2) Aquatic insects, nymphal and adult; (3) Larger crustaceans, such as the crayfish, and cold water minnows such as the blacknosed



Drought had its effect on mountain as well as meadow streams.

dace, and (4) Terrestrial types such as the earthworm, grasshopper and cricket, which may be washed into or fall into the stream from the shoreline. The first three groups, to be found constantly in the same element with the trout, are of basic importance. The fourth group, at certain times of the year, also furnishes excellent forage.

In discussing trout forage, we have at times heard fishermen remark that such-and-such stream should be ideal for trout because minnows of various species were so plentiful. The reverse, particularly in smaller waters, may often be the case. Minnows such as the horned dace or run chub, the silver shiner and even the blacknosed dace compete directly with trout, particularly in taking such forms of food as insects in the nymphal and adult stages and small crustaceans such as the scud or freshwater shrimp. Some minnows in a trout stream are desirable for without doubt they serve as good forage for adult trout, but when too numerous they may be classed as definitely undesirable.

During the past year, the ANGLER has called attention repeatedly to the serious lack of forage in bass waters. This same condition exists to a startling extent in many of our trout streams, particularly those smaller streams subject to drastic fluctuation in flow. Following the flood of '36, sparse hatches of insects were observed in numerous streams. During the 1937 season, hatches of aquatic insects were somewhat better, and from observations last season,



The flow in most trout waters is heavy during winters of normal rain and snow.





A Bald Eagle brown trout that exemplified good condition. It was 22 inches in length and tipped the scales at five pounds.

this type of forage is making a fairly good comeback, particularly in major trout waters. In streams seriously affected by drought, however, extremely light hatches were noted.

There is real hope, it appears, in bolstering the forage supply in trout streams through introduction of more crayfish. As in the instance of bass, this crustacean constitutes a vital source of trout food. In a surprising number of instances, when trout have been opened during the past several years, crayfish of varying sizes have been found in their stomachs. The crayfish cannot be ranked as a serious competitor of the trout for food, since it feeds readily on decaying vegetable and animal matter. It will, of course, take floating food washed into a stream, such as the earthworm, and small fish such as the minnow when occasion offers. Generally, however, we believe it to constitute one of the most beneficial types of trout food to be found in our waters. The Fish Commission's fish forage raising program, now in an experimental stage at the Pleasant Gap hatchery near Bellefonte, may prove a definite boon to trout waters as well as bass waters.

In the past, we have referred frequently to the splendid methods being followed in trout stream management in Great Britain. The following words of Wilson H. Armistead, noted British trout culturist, in his treatise, "Trout Waters," stress the importance of this vital factor, trout forage.

"Those who have studied a trout stream closely are aware that, as a rule, the growing fish and the mature fish are not on the feed at the same time. It sometimes happens that the result of a day's fishing is a basket of undersized trout, whereas at another time only the mature fish are caught. It would seem that this was a provision of Nature for the protection of the young fish; at any rate, it is a happy coincidence which tends towards their safety.

"A plentiful food supply means not only that the young trout keep to their own quarters, but also that the larger fish keep to theirs. The old stagers love to have a corner to themselves, in which they can find both bottom and surface feeding in abundance.

"If the supply in the stream is scanty, the older the fish get (up to a certain point) and the larger they grow, the more widely they must forage for their food, for each season they require more nourishment. The question of supply and demand in a trout water is one which requires the utmost care. Too much feeding is bad from an angler's point of view, for the trout get lazy and will not rise to the fly. Too little feeding means that they will be

keen risers, but not large, and when they get old and cease to rise they must become cannibals or starve. It is frequently thought that only large trout become cannibals in their old age, but this is far from being the case. Our mountain streams, which contain small, poorly-nourished fish, produce as many cannibals as, and probably more than those where the feeding is better, and, as almost the only food they can procure is small fish, they are more destructive.

"To strike and maintain an exact balance between the food supply and the stock of fish is difficult, and the difficulty is increased when the fishing is haphazard, and no record is kept of the season's catch each year or the numbers of spawners on the redds in the autumn. Even if this is only done approximately it is a valuable guide. Possibly it may be thought too much trouble to keep in touch with the important facts bearing on the welfare of a trout water, and if this is so it only remains to be said that he who neglects his stock will lose it.

"Of the two evils an excessive food supply is less to be dreaded than a scanty one, because, unless there is some serious obstacle in the way, this will right itself in time, as the number of young fish which survive will be large enough to stock the water fully.

"When the supply is scanty there are two ways of dealing with the water—either by reducing the number of trout or turning special attention to the propagation of those creatures which the fish feed on. The latter way is much the more satisfactory, though perhaps the former is easier."

Obviously, it would be verging on the impossible to keep an accurate creel census of catches on Pennsylvania's hundreds of miles of public trout waters, a factor that should be taken into consideration when discussing the management program on Britain's streams, which are, in most part, privately owned. On the other hand, definite improvement in the forage conditions prevailing on many of our waters at the present time may conceivably be brought about through raising of and stocking from the hatcheries suitable organisms upon which trout may feed.

The condition of trout which the average fisherman may take during a day astream tells a mute story much more forcibly than any words. While it is true that occasionally a racy specimen may be taken from water noted for the heavy girth and fine condition of the trout it produces, generally streams with an abundant supply of forage produce heavy, well-conditioned fish, and streams lacking sufficient food yield racy specimens often with abnormally long jaws. This, of course, applies to fish that have been present in the stream over a period of years.



A tiny mountain brook in flood.



Note the condition of these Wallenpaupack brown trout.

Because of the length which they commonly attain in our waters, brown trout in particular seem prone very often to acquire length and pickerel-like girth in streams offering an insufficient food supply. Spring Creek and Bald Eagle Creek in Centre county, two of the ace trout waters in Pennsylvania from the angle of food supply, last year produced, in addition to the record brown trout, a number of exceptionally fine specimens, girth to length considered. Brown trout taken in Lake Wallenpaupack in recent years on the other hand have been usually long racy fish.

At the present time, there is little reason to doubt that trout fishing in Pennsylvania is based primarily on hatchery production of trout, legal size and over. With the possible exception of streams such as Penn's Creek, Bald Eagle, Spring Creek, Big Pine and other larger trout waters which carry over from year to year a stock of stream-acclimated trout, good fishing for the rank and file of our fishermen may be said frankly to depend upon production of catchable fish at the hatcheries maintained through the fund of the licensed fishermen. It is probable that several good winters of snowfall to restore streams to their normal flow throughout the year and gradual replenishment of natural forage may alter this situation in the future, but until that time the trout fisherman should rest content that his hatcheries are producing brook, brown and rainbow trout that any angler should be proud to take.

The army of licensed anglers has been increasing by leaps and bounds during the past four years, and heavy stocking with hatchery fish is essential to provide sport. It is probable, however, that in the heart of every trout fisherman rests the hope that the day will come when streams restored to their former carrying capacity will be capable of harboring a good population of trout from year to year. At least, that's an ideal to build to, and bringing back the food supply in many of our drought-affected waters would seem to be a step toward the ideal.

Brook trout waters, particularly in mountain areas, that in years gone by rarely if ever pro-

(Turn to Page 14)



# BROWN VERSUS BROOK AND RAINBOW TROUT

By C. JOEL YOUNG

**T**HE brook trout, a native of Pennsylvania, is fast losing ground in the open country streams in southeastern Pennsylvania. Proof of this statement is given in this article. As the brook goes out the brown trout firmly establishes itself, it seems.

Prior to December, 1920, very few or no brown trout were in the Little Lehigh Creek. This stream is a typical limestone stream located in the agricultural region of Lehigh county. It is 25 miles in length, with an average width of 60 feet and has a depth of 5 feet average. Fed by consistent flowing springs through its entire length its tributaries are well located and supply a nice volume of clear spring water. This stream is rated as one of the best trout streams in Pennsylvania and accommodates as many fishermen as any stream in the state. It is a common sight to see 1,000 fishermen in the 10 mile stretch where the fishing is best on the opening of the trout season.

If brown trout were stocked in any part of the Little Lehigh Creek prior to 1928 the writer has no knowledge of it. The writer does, however, have the information that no brown trout were stocked in this stream between 1920 and 1928. In December of 1920, the Alburdis Furnace blew out several cubloas and in order to speed the cooling of the cubloas a fire hose was used to flush out the inside. This water carried cyanic poisons into the Swopian Creek, a tributary to the Little Lehigh Creek, located about 15 miles above the mouth of the stream. This pollution killed all life in the stream including fish and fish food. Thousands of trout and other fish were killed and for several days Mr. Acker (fish warden now deceased) removed these dead fish and buried them. Among the fish removed were brown trout, ranging in size up to 30 inches and even at this time the brown trout outnumbered the brook trout.

After the stream was again cleared up and recovered from this pollution, the Board of Fish Commissioners again stocked the stream with trout and I want to impress on the reader that from this period until 1928 *only brook trout were stocked*; but, the predominating catch each year was brown trout and this held true throughout the entire area where the pollution killed all the fish.

The Trexler Trout Hatchery, a private hatchery, is located about 5 miles from the mouth of the Little Lehigh and at the time of this pollution, the loss at this hatchery was about 25,000, 15-inch trout. They were very fortunate that the only ponds affected by the pollution were those ponds that were fed by the water from the Little Lehigh Creek. All the other ponds were fed from springs originating on the property.

Since trout of all species were killed throughout this 15 mile area and only brook trout were stocked (the Board stocked many trout to compensate for the loss) yet the predominating catch of trout each year was of the brown species, there can be but one answer and that is, these few remaining brown trout after the pollution killing did reestablish themselves even in the face of food shortage without any help from artificial sources. During the rehabilitation period from 1920 to 1928, the brown trout came

back apparently on their own, while the brook trout and rainbow trout failed to stage a comeback even after the Board of Fish Commissioners restocked them. The Lehigh County Fish and Game Protective Association also stocked each year 10,000 rainbow trout which were received from the United States Bureau of Fisheries as fingerlings and raised at the Trexler Hatchery until they attained sizes from 6 to 8 inches. They were stocked in the Little Lehigh Creek each year during this period. I do not hesitate in saying that if it were possible to carry on an experimental test, one would get better facts than those stated above.

The next and most convincing proof in this article came about during 1935. On July 9,

1935, we experienced one of the most destructive floods in the history of Lehigh Valley. It was the only flood in the history of the Trexler Hatchery that flooded out the hatchery ponds. Approximately 100,000 legal size brook trout were a loss for the hatchery and all of these were swept into the Little Lehigh Creek. There were also approximately 10,000 legal sized brown trout and about 150,000 rainbow, brook and brown trout fingerlings. Of the 100,000 legal brown, brook and rainbow trout, about 40,000 of these were recovered by the hatchery company, then they returned into the tailraces coming from the ponds on their property. I made a close survey of the catches of trout from July 9 to the end of trout season and



An exceptionally heavy, well conditioned brown trout taken last season in the Little Lehigh Creek by Bill Sorger of Allentown. It measured 21½ inches in length, had a girth of 13½ inches and weighed five pounds.





*Allentown Call Photo.*

Bart Snyder, chairman of the Fish Committee of the Lehigh County Fish and Game Protective Association (left) stocking legal size brown trout in the Little Lehigh. Right, Association members who assisted in the planting. The writer, extreme left, and George Zimmerman, honorary life member, third from left.



in these waters but for their own satisfaction and information.

Robert Kleckner, 27 W. Church Street, Bethlehem, kept records of all of his trout catches and he says that during the period from 1920 to 1935, all his catches of trout in the Little Lehigh Creek were predominantly brown trout and that the brown trout catches were 93% over the catches of brook trout and rainbow trout.

George W. Dimmick, 524 W. Union Blvd., Bethlehem, says that all his records cover the same period and he claims that the brown trout catches predominated in the Little Lehigh Creek over this period.

Morris D. Salisbury, 537 N. Circle, Bethlehem, has kept records and found that brown trout catches exceeded catches of brook trout and rainbow trout in the Little Lehigh Creek from 1920 to 1935.

We do not go beyond 1935 for the reason that brown trout are now stocked in the lower reaches of the Little Lehigh Creek. This information can be verified by writing to any of the three fishermen just mentioned.

## CLEARFIELD CLUBS ENDORSE BRETH PLAN

A new plan for the improvement of fishing streams was endorsed by the Clearfield County Federation of Sportsmen's Clubs at their meeting in West Decatur.

The plan, proposed by Harris Breth, of Clearfield, asks the Fish Commission to select 50 headwater streams in various parts of the State and put two men at work on each for a period of two months.

They would devote their time to placing trees and boulders in the streams and otherwise developing pools for game fish, which will replace those that were wiped out by the floods of 1936.

The terrific pressure of the flood water washed out streams so thoroughly that no pools were left and the waterways were so "clean and glistening" that they lost their attractions for fish, declares Breth.

Reports of the delegates to the recent State Federation of Sportsmen's Clubs convention were received at the meeting.

## OVERSTOCKED PONDS PRODUCE SMALL FISH

By H. S. Swingle and E. V. Smith

*Alabama Agricultural Experiment Station  
(Reprinted by courtesy Alabama Game and Fish News.)*

Experiments on fish production in ponds have been carried on for the last four years by the Agricultural Experiment Station at Auburn. Some of the most interesting results have been those upon the effect of the number of fish in a pond upon the pounds of fish produced per acre, and upon the size of the fish.

Two ponds were stocked in June with bluegill bream at the rate of 6,500 newly hatched fry per acre of water. The following November the ponds were drained and the fish were counted and weighed. It was found that they had reached an average size of slightly less than one ounce at an age of 6 months, and that the total production was approximately 300 pounds of fish per acre.

These fish were carried on for two more years with the same number of fish per acre and the ponds again drained when the fish were 2½ years old. It was found that these fish still weighed only about one ounce each and that the total weight in the pond was still only about 300 pounds of fish per acre. Apparently these ponds produced only enough food to support 300 pounds of fish and the fish were unable to grow further after their combined weight had reached this figure.

Two-year-old bream averaging an ounce each were used in another series of experiments to see if fish production could be increased by increasing the number of fish in a pond. Three ponds were stocked in the spring with 1,300, 3,200 and with 6,500 bream per acre. In November the ponds were drained, the fish removed and weighed.

Where stocked with 1,300 per acre, the bream had reached an average size of 4 ounces; where stocked with 3,200 per acre, they had reached an average size of slightly less than two ounces, and where stocked with 6,500 per acre they had reached an average size of approximately one ounce.

The total weight of fish produced was approximately 300 pounds per acre in each of the ponds. Increasing the number of fish in the pond did not increase the number of pounds of fish produced—it merely resulted in smaller fish.

Where the food supply is unchanged, more fish in a pond mean smaller fish; fewer fish mean larger fish.

according to my closest estimate there were about 10,000 legal sized brook and brown trout caught by fishermen during the remaining days of the open trout season in 1935. That left about 40,000 legal brook trout for the season of 1936 and I also am of the opinion that these were all the trout among the 150,000 fingerling fish still in the stream that the stream could support. I therefore wrote to the Board and asked that no trout of any kind be stocked during 1936.

During the 1936 season, a very careful survey was made by me to ascertain whether the catch would be better than in other years. I found to my disappointment that the season was the poorest we had had in ten years and again the predominating catch was of brown trout. What then does this prove? In my opinion it proves that brown trout will and can establish themselves in streams where brook and rainbow trout cannot or will not. The results of stocking brook trout and rainbow trout in similar proportions with brown trout in this and other streams of the same characteristics are apparently the same; that is, the catches are from 60 to 90% better with brown trout stocked than with brook trout and rainbow trout stocked.

The proof already given should be convincing to anyone. However, I have still more proof and this is from unsolicited sources. Below I will give the names of three anglers who have kept records of catches of trout in several streams in this vicinity. These records were not made with the idea of starting any arguments as to what species of trout were suitable



# CONCERNING SNAKES

By FELIX J. BARCHOCK

(Part 1)

THE characteristic contour of a snake's body is too familiar to need elaborate description. Its leading features are, in fact, so nearly approximated by certain of the legless lizards previously described that the distinctions between the two can with difficulty be defined. The snakes agree essentially with the lizards in the character of their scaly covering, the scales, however, being larger on their under surface and especially adapted (as in the legless lizards) for creeping locomotion.

The essential distinctions between the two groups have to be sought in the structure of the head. The most notable of these, as it obtains in the snakes, is the very loose manner in which all the bones connected with the jaws are held together, thus providing for the greatest possible distension in the act of their swallowing their prey whole as is the custom of all ordinary snakes.

To achieve this end the two halves of the lower jaw are not united together at their extremity or chin as in lizards but are merely connected with one another by an elastic ligament. In most snakes the bones of the upper jaw and palate are also attached to one another in a similar way.

The eyes of a snake differ in a very marked manner from those of ordinary lizards. No snake possesses movable eyelids. The eye, in compensation, is protected by a transparent horny disk continuous with the general epidermis and is shed with it when the snake casts its skin.

This feature imparts to snakes that fixed, stony expression of the eyes with which snakes are commonly regarded as possessing. A few exceptional lizards, such as the Geckos, have a similar eye construction but it is not met with in any of the limbless or snake-like forms.

No snake, again, shows any trace of external ear openings; such structures on the other hand being distinctly developed in almost all lizards. The head, itself, of the snake is never compressed or elevated as in most lizards but flattened down and usually wider than the body to which, however, it is united without a distinct neck. The tongue of the snake is slender and terminates in two long thread-like points. Basally it is inserted into a hollow sheath into or out of which the entire organ can be retracted or inserted at will. The somewhat uncanny flickering action with which a snake while moving displays and, as it were, feels its way with its long, forked tongue, represents the element which adds to the disfavour with which these reptiles are commonly regarded. Among the uneducated, even in the present day, it is not unusual to hear that the tongue, with reference to its peculiar shape and the vibrating action, pronounced to be the seat and instrument of the reptile's poisonous properties.

The swift, silent, stealthy, gliding motions with which, apart from any visible organs of locomotion, a snake glides, as it were, along the ground and over all obstacles, fills to the brink the measure for its condemnation in the estimation of all but the snake devotee or the naturalist.



Copperhead.

Game Commission Photo.

## Their Locomotion

The locomotion of the snake is, as a matter of fact, one of the most remarkable and beautifully-contrived phenomena in animal mechanics. The peculiarly jointed and abnormally mobile ribs constitute the mystic *deus ex machina* by which the reptile accomplishes its migration. These ribs articulate in pairs by a single mobile head with their respective segments of the vertebral column. At their opposite extremity they impinge on and are in muscular connections with the broad, slightly overlapping shield-like scales which clothe the under surface of the body. The rib muscles contracting in rhythmical successions, raise the free overlapping edges of the shield-like scales which, striking against the ground in the same regular order, push the body forward.

Adopting an easily comprehensible simile, the snake's body is carried along the ground on the same principle as a paddlewheel steamer is pushed along the surface of the water. The paddle boards in the case of the snake being affixed to a long, narrow plane instead of a circular wheel.

## Poison Fangs

The poison-fangs of snakes are highly specialized structures and their presence or otherwise was formerly considered sufficiently distinctive for the separation of these reptiles into two sharply-defined natural series. More recent investigations, however, have shown that such a system of classification is entirely artificial, both venomous and harmless species occurring among groups which are related to one another by essential structural characters.

The teeth in the ordinary or harmless snakes are usually represented by two rows of slender, recurved, sharply-pointed teeth in the upper jaw and a single row of a similar character in the lower one.

This recurved character of the dentition effectively assists the snake in gorging its quarry whole. Nothing once seized by the hook teeth has a chance of retreating, the snake, itself, being unable to eject the prey upon which the teeth have fastened. In the most poisonous species, such as the rattlesnake, there is but a single row of recurved teeth in the upper jaw and these are equivalents to the inner set of the harmless species. Among the most venomous



snakes, the poison fangs are tubular in character, the poison being received from the venom glands at their open base and discharged at the apex. In other forms the fangs have grooved channels only for the passage of the virus, while in the other species, there may be an intermediate condition.

In all cases, the poison-secreting glands are a modification of the ordinary salivary glands of vertebrate animals. They are situated one on each side immediately below and behind the eyes and are in some instances so abnormally developed as to extend backwards along the sides of the body. Special muscles envelop these glands and force the poison into the hollow base of the fangs when the mouth is opened to strike.

**EDITOR'S NOTE:** The trout fisherman, trying his luck on a mountain stream, may happen upon a rattlesnake; copperheads are occasionally encountered on bass waters. In presenting this article on snakes by Mr. Barchock we feel that our readers will gain a better understanding of reptiles.

## SPANGLER SPORTSMEN PLAN TO REORGANIZE

The Spangler Sportsmen's Association held a special meeting in the Legion Hall, Tuesday, February 28th, for the purpose of reorganizing, with Martin Kirsch presiding. Temporary officers were elected as follows, Martin Kirsch, President; Paul M. Lantzy, Secretary; and Gust Kurg, Treasurer. These officers were to

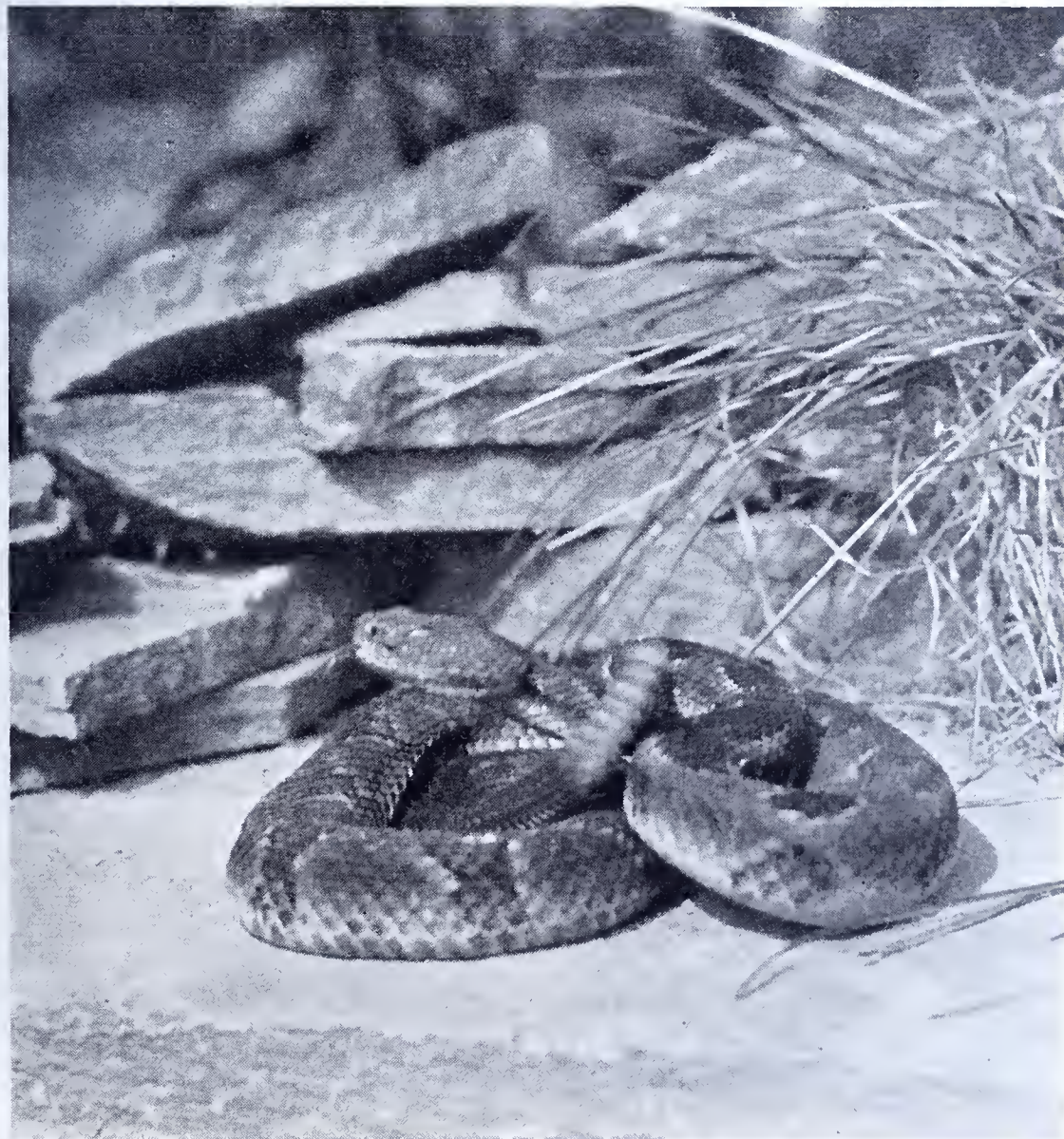


*Game Commission Photo.*  
Showing the fangs of a black timber rattler. Nearest fang has sheath still covering it. Other fang has sheath retracted by elevator.

act until the next meeting, which was held on Sunday, March 12th at 2 P. M., in the Legion Rooms.

A membership committee composed of Walter Weaver, Chairman, William Reed, Clayton Reffner, William Whalen and Robert Evans were appointed.

E. J. Lehmier and Clayton Reffner were appointed to make an inspection of the Duman Dam and report back at the next meeting.



**Timber Rattlesnake.**

*Game Commission Photo.*

## LUNCHEON CLUB HONORS HUNT

Pennsylvania Sportsmen's Luncheon Club members and friends, at Pittsburg, turned hill-billies, donned whiskers, beards and mustachios of various hues and styles and lit corncob pipes to honor Col. Paul C. Hunt, president of the organization who, shortly, will leave for the Missouri Ozarks to make his home.

Chet Smith, sports editor of *The Pittsburgh Press*, presented Col. Hunt with a certificate, autographed by all present, making him honorary president of the club for life. George Ewing presented a fly rod and reel with the compliments of his fellow members.

The Colonel was well fortified with necessities. Among the other mementos presented were a pair of stilts to keep his feet dry when traversing the Missouri swamps; a pair of waterwings, in the event he fell out of the boat; a contraption which appeared to be something in which to keep ice cubes . . . for what, no one mentioned, but which in reality was a fly book; a miniature donkey, to carry him over the hills; a night-cap, which wasn't in glass; directions how to raise a houn' dawg; a replica of his favorite game animal, the Missouri cottontail, and numerous others.

## TOWANDA CLUB HEARS SHOEMAKER

Election of three new directors and an inspiring talk by Fish Protector Myron E. Shoemaker, of Laceyville were the highlights of the annual meeting of the Towanda Rod and Gun Club held at the Ward Hotel. A delicious turkey dinner was served, covers being laid for approximately 125. During the dinner, chorus singing was led by Romeyn Culver and Vincent Connor with Mrs. Culver at the piano. After the dinner, a short business session was held, followed by brief remarks on the part of veteran sportsmen and club leaders. Mr. Shoemaker's talk was the only one of a formal nature and brought the evening to a close.

The three new directors elected are Gerald Moore, of North Orwell, William K. Breen and Lewis Barnes, of Towanda. They were nominated by Merle Apgar and the nomination was seconded by Leo Scholl. There were no other nominations so election was unanimous.

President Russell White presided at the banquet.

"Oatmeal, oatmeal—every day oatmeal!" lamented Willie.

"Yes," said Fred, "no wonder they call it a serial."

Sailor: "We just dropped our anchor, lady."

Lady: "I'd been expecting that. It's been dangling outside for some time."

Traveler: "When I was in England I saw a bed twenty feet long by ten feet wide."

Man: "Sounds like a lot of bunk to me."

Teacher: "What insect requires the least nourishment?"

Jack: "The moth, he eats holes."



# A TROUT TAGGING STUDY

By G. L. TREMBLEY

**W**HAT happens to the trout planted in our Pennsylvania streams? Do they move upstream, downstream, or stay about where planted? What influence has the season of the year upon their movements? How does their growth compare with that of their brothers and sisters which are retained in the hatchery? For what length of time can a planting of a thousand legal trout be expected to provide good fishing in a stream? Which season of the year is best for planting?

Recently The Pennsylvania State College and The Pennsylvania Board of Fish Commissioners have entered upon a cooperative project which will throw some light on these questions. There is a further partner in this work—the fisherman who visits the stream where these studies are being conducted—for, as will be shown later, much of the success of the experiment depends on him. It is believed that these studies will yield information of value to a trout management program.

In order to obtain the data desired in this study, it is necessary to mark the trout, before releasing in the stream, in such a manner that they may be identified when caught. The Institute for Fisheries research in Michigan has developed the jaw-tag method of marking trout and has used it successfully for several years. The method consists essentially of encircling the lower jaw bone of the trout with a metal tag which carries a serial number. Experiments have shown that these tags do not rust in water and have little, if any, effect upon the trout. This method has been adopted for use in the present study.

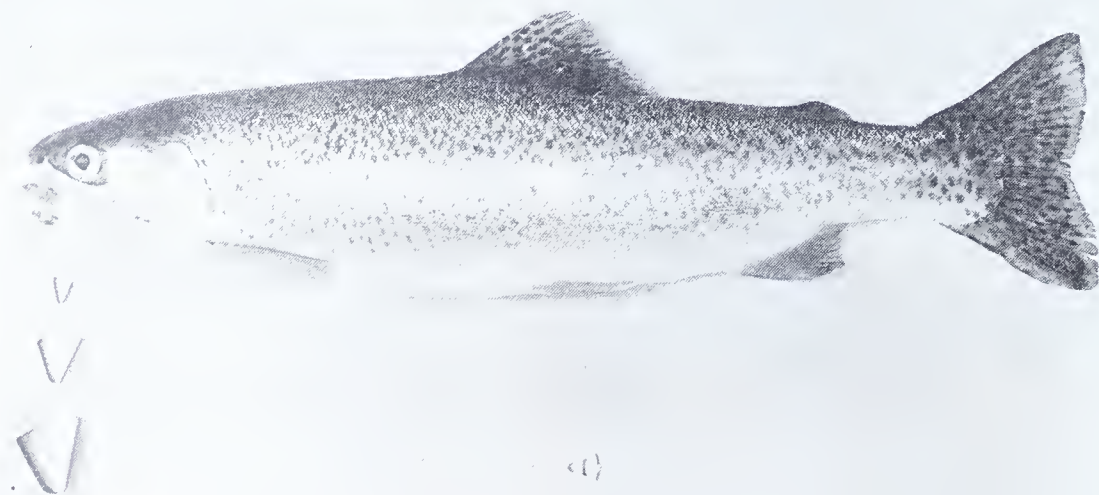
The accompanying photograph shows a rainbow trout with a tag in place around the lower jaw bone. It also shows the various sizes of tags used—the size of tag being dependent on the size of the trout. The largest tag has been

opened to show the serial number and the letters PENN.

For the initial experiment, 1,500 legal sized trout have been measured, tagged and planted back of the Rockview Penitentiary in Spring Creek, Centre County. The place and date of planting have been recorded. Before the opening of the trout season, a similar number will be planted there followed by a further planting during the summer. A similar program is planned for Kettle Creek, Potter and Clinton Counties. Posters will be placed along the streams to inform the fisherman of this work and to ask his help in returning the tags with certain information. Helpers will be stationed along the stream to further explain the program and to receive tags and record the necessary data on each fish. As it is not possible to keep helpers on the stream at all times, fishermen are urgently requested to record the following information on each tagged trout taken:

1. Number on tag.
2. Length of trout from tip of snout to crotch of tail.
3. Date when taken.
4. Locality where taken (this should be as definite as possible). This information may be sent or given to C. R. Buller, State Fish Hatchery, Pleasant Gap, Pa., or to G. L. Trembley, Dept. of Zoology, Penna. State College, State College, Pa.

The leaders in this work wish to impress upon the fisherman that this program is *not* designed as a restriction on fishing. On the contrary, when sufficient tags and data are returned, it means that valuable information will be at hand which may eventually lead to more enjoyment of this beloved sport.



A tagged rainbow trout and the type of tags being used.

## FISHING BILL IN ASSEMBLY

The only bill introduced at the present session of the Legislature effecting the Fish Commission is what is known as Senate Bill No. 160, introduced by Senator Crowe on March 7, 1939. This is a bill covering general amendments to the Fish Code and was drawn at the request of the Fish Commission.

The most important amendment provides for the purchase of lands and waters by the Fish Commission in its own name. This has never been possible in the past and the amendment gives the same authority as granted to the Game and the Department of Forests and Waters.

Sections on size, season and number were amended so they would conform to the rules and regulations as set up by the Board for 1939. Amendments have also been made so Baitfish and Fishbait can be taken on Sunday. Penalty of One Hundred Dollars (\$100.) is also provided for the taking of fish with a seine or net—under the present law, it is only Twenty Dollars (\$20.).

Briefly, the amendments are as follows:

Section 20—Taking rock bass from protected class.

Section 30—Removing size limit on rock bass.

Section 40—Creel limits have been made to agree with rules and regulations as set up by the Board.

Section 50—Provides for a penalty of \$100. for the taking of fish with a seine. Under the old law the penalty was only \$20.

Section 220—Allows residents and non-residents to secure a new license for fifty cents upon affidavit when both the license and button are lost.

Section 251—Provides a penalty of \$10. for each fish in possession contrary to rules and regulations as set up by the Board.

Section 255—Clarifies closed streams section so that Board may prescribe method of advertising.

Section 265—Provides for the taking of baitfish and fishbait on Sunday. There have been requests from all sections of the Commonwealth asking that this amendment be made.

Section 286—Provides for the purchase of land and waters by the Fish Commission in its own name which could never be done in the past. The section as amended is similar to the law under the Game Code and the Department of Forests and Waters.

In our opinion, this bill should have the endorsement of all the fishermen as we believe there is nothing in it which should not meet with their approval.





*Question: Am interested in winter sucker fishing. Could you mention some good sucker streams within a radius of thirty miles from Sunbury? We have good fishing right where the North Branch of the Susquehanna and the West Branch come together at Northumberland, but am interested in smaller streams.—A.K.M.*

*Answer: You're in good sucker territory with some mighty fine creeks to give a try. For example, there's the Chillisquaque Creek from its point of juncture with the West Branch below Milton to Washingtonville, Montour county. On the other side of the river from Sunbury, there's Penns Creek in Union county. Another good Union county stream is White Deer Creek, near the river. Snyder county has Middle Creek and Mahantango Creek. All of these streams annually produce good catches of suckers.*

*Question: What is the difference between a catfish and a bullhead?—H.A.A.*

*Answer: The bullhead is a native member of the catfish family.*

*Question: Does Pennsylvania artificially propagate pickerel?—E.H.J.*

*Answer: While the pickerel is not propagated artificially at the hatcheries, from 1000 to 2000 fish of this species ranging in size from 12 to 15 inches, are taken annually at Pleasant Mount hatchery in Wayne county when the ponds are drained down in the fall of the year. These pickerel are then planted in suitable waters. Of the fresh water game fishes, the pickerel is one of our most voracious, and producing a good number of young in the limited confines of nursery ponds would, in addition to requiring a vast amount of live forage such as minnows, be attended by probable heavy loss through cannibalism. Young pickerel, too, are very delicate, among the most delicate of our game fishes. This applies to the adult fish as well and it is possible that, although stripping the adults of eggs and milt may be accomplished, mortality among the brood fish at this time might be high.*

## SLOW BUT SURE

*Some men apparently rush through life and crowd into the space of a few, hectic years their earthly experience, thereby realizing but little of the real beauties of life. It may be that they are actuated by a desire to accumulate a fortune quickly. It may be that business or competition makes it imperative for them to strain every faculty in seeking to reach the goal. Whatever the cause of their mad haste, they are assuming a grave risk.*

*Question: Following information would be appreciated. Of the three species of trout in Pennsylvania, what waters or streams are most suitable for each species? In other words, do rainbows take to cold streams better than brook or brown trout and vice versa?—C.A.Z.*

*Answer: Apparently, the temperature requirements of trout of the three species mentioned are approximately the same. Brook trout, brown trout and rainbow trout produced at Pennsylvania hatcheries are believed to be able to withstand temperatures in streams up to about 74 degrees Fahrenheit. So much for temperature requirements. From the angle of hardiness and having the ability to withstand adverse stream conditions, the brown trout seems to have the edge. The rainbow trout appears to require water highly charged with oxygen to a notable degree as witness the tendency of these fish to frequent turbulent stream sections. Pure water with an abundance of cover seems requisite for best results in stocking our native charr or brook trout.*

*Question: Does the state issue maps of counties or otherwise, showing streams and ponds and the species most fished for in same.—G.A.McA.*

*Answer: No. However, a very good state stream map is available at the Division of Documents, 10th and Market Streets, Harrisburg, at a charge of twenty-five cents (\$.25), cash, check or money order.*

*Question: What is a good bait for the yellow perch, and where are some good waters for this fish?—R. L. N.*

*Answer: Recognized as perhaps the best bait for the yellow perch are small minnows. Perch travel in schools, and after a school is located, by using live minnows for bait, a good catch may often be made in a short time. The glacial lakes and ponds of Wayne, Pike and Monroe counties rank as the best yellow perch waters in Pennsylvania. And incidentally, when it comes to eating, you'll go a long way to find a better fish than the yellow perch. Its flesh is sweet and firm.*

*Rest is necessary—relaxation is imperative—and he who refuses or fails to take these precautions sooner or later leaves this sphere long before the expiration of his allotted time. The sensible man is temperate in all things. He realizes the value of a sound constitution, a clear mind. He knows that his success does not depend so much upon sudden spurts of almost superhuman energy, with its inevitable reaction of exhaustion, but upon a steady, normal performance, carefully organized, which produces best results.—The Gideon.*



What with the trout seezun jest ahead, thet's all a feller kin hear down ter the corner store. We wuz atalkin' it over t'other nite an' I figgered it ud be a good idear, now thet the boys is so het up ter talk a leetle erbout betterin' our fishin' in this neck o' the woods. Fer sum yeres back, the boys wuz rite interested in killin' them watersnakes, but last yere they sorter slacked up on it an' rite now we got too menny snaiks in our mountin an' medder runs ter make it helthy fer the trout. Per-tickler last fall, when the runs got so allfired low, them snaiks played merry ned with the fish. Killed 1 watersnaik, 30 inches long, thet hed 3 trout, all erbout 5 inches long an' a leetle sucker in it lait last September. Reckin we'd better bear down on the critters cum this seezun.

Eeziest time, I figger, ter kill watersnaiks is in late August, rite afore they hev their yung. The mother snaiks seme ter git rite logey an' it ain't no trick ter kill a scad o' them with a club. Mitey gude practice fer the shootin' eye with a 22, too. A cupple snaiks I killed last fall hed ez high ez 30 yunguns in 'em. Shure is surprizin' how quick them leetle codgers is rite atter they're born.

We'd better figger too on mebbe doin' a bit o' improvin' on our spring runs this yere. Keepin' them ez cold ez possible is shure ter help the trout in the main crick they feed inter when the weather gits hot an' the water low. A good way ter improve these leetle feeder runs is ter put in these here deflectors so ez ter keep the water movin' at a lively clip. The more shade the better an' I wated sum brush with stones so ez ter maik it hang over the water much ez possibel.

We got a mountin run up in pine gap thet never hez hed speckled trout in it much over 7 inches. Well, sir, I did a leetle work up there an' you'd be surprized how it helped the feed in the run. Water's so fast thet it don't pervide much chance fer plants ter grow. Made a cupple winter holes level with the streme bed an' runnin back inter the bank erbout 15 feet. Filled them dead water holes with brush an' when it started ter rot, durned ef they wasn't a fair lot o' feed ter be washed inter the crick cum high water.

Us fellers thet like our trout fishin' shure kin do a lot now an' then ter make the fishin' better an' rite now is a good time ter be plannin' on the work, semes like.

I'll be sinin' off now an' here's hopin' the boys hev grate sport on openn day.



## TROUT CONDITION TELLS THE STORY

(Continued from Page 7)

duced charr much over the six or seven inch mark, may in some instances be on the stocking list today for brook trout ranging to 12 inches in length. It is a safe bet, however, in waters of this type, that the season catch of hatchery stocked trout will reduce the charr population drastically.

We must recognize the fact that the future condition of many of our trout waters is dependent, first of all, upon natural replenishment of the underground water table through normal years of snowfall and rainfall. Granting this, introduction of more cover for trout, increased development of second growth timber on trout stream watersheds to serve as additional guards against erosion and excessive runoff, and provision of more natural forage for trout will also be essential in providing better trout fishing.

## THE GREEN DRAGON

(Continued from Page 5)

while from a window, I heard an impatient buzz of wings as the transformed creature demanded its freedom. Over night, from an ugly, scummy dragon, it had become a bright green and blue prince with gleaming wings . . . a full-grown dragonfly!

What a transformation! From a loathsome thing to the most graceful creature in the air. Dragonflies are found in their earlier or aquatic stages in one of three habitats: one group lives on the stems of water weeds as the ones I found; another sprawls in the ooze and silt at the bottom of a pond or stream; still another burrows several inches below the muddy bottom from whence it rises but once: to change its squalid, prison-like existence for one of sunshine and freedom.

How much harm the dragonflies accomplish during the pre-adult stages is difficult to determine. The species I had in captivity seemed to prefer tiny fish to any other type of food offered. Frequently three tiny bullheads would be consumed in a day. I talked to a forest ranger in Pennsylvania about the seriousness of the ravages of these insects during the nymphal stage. He believed from his observations that along the ordinary stream, one stocked with fish of various sizes, the depredations made by these insects are rare, and would never con-



Barely enough water in this northeastern county stream to cover the rocks during a drought summer.

stitute a serious menace. In fact he insisted that dragonfly naiads make up an important source of the food of trout.

But they are and constantly will be a source of irritation in the small pool where there are no large fish to destroy them somewhere between the microscopic stage after incubation and the pre-adult stage when their appetites seem insatiable. If the pool is fed by a stream a fine mesh screen would keep out the larger naiads, but since the very young cannot be seen by the naked eye, many would still enter freely. Then too, the adult females of many species roam the countryside in search of quiet water in which to drop their eggs, and again the pool is infested. Cleaning the pool during the winter will help, for it will destroy those naiads with a life cycle of two or more years, but many, such as the green dragon, go through their entire life cycle, from egg to old age, in less than a year.

It is a comforting fact, however, that after the transformation into the adult insects, the dragonflies change their fish-eating ways and become entirely insectivorous, living largely on mosquitoes and gnats. In this stage their importance in ridding our surroundings of these dipterous pests cannot be over-estimated. They never cease to be cannibals, however, and when food is scarce, they will turn upon members of their own kind for existence.

## INDIAN CREEK CLUB ELECTS DIRECTOR

Thomas Lowe was elected director of the Indian Creek Valley Chapter, Fayette County Fish and Game Protective Association, at a reorganization meeting held at the office of 'Squire W. S. Christner, at Davistown. Lloyd Echard was named secretary and James May treasurer. Sixteen new members were received, making the enrollment 28.



Spring Creek in Centre county, is a major trout water that has retained a consistent flow during drought years.



This 22 inch brown trout from Bald Eagle Creek weighed five pounds.



# FLY ROD SUCKERS

By H. B. WAGNER, JR.

Who has ever heard of or has taken suckers on a fly rod? I have often hesitated to write an article of this type partly because of inadequate material and partly because of the scorn which I would be sure to invite. Overcoming one obstacle while ignoring the other, I will describe my experiences in this type of fishing.

In the first place, those who have never tried fishing for suckers with a fly rod are missing a rare treat. Personally, I believe that there is no finer sport than trout fishing. But in order to conserve our supply of trout and other fish, we must have specified seasons in which to take them, therefore, after the seasons on these fish are closed, there is no reason why you should store your tackle away when this sport is to be had.

First, we shall take up the sucker himself. He is found in most of Pennsylvania's rivers, streams and dams. Although these fish are generally considered warm water fish, they are often found in many of our spring fed and mountain streams. They are exclusive bottom feeders, using the powerful sucking mouth, from which their name is derived, to secure food. The sucker feeds mainly on bits of food carried along by the current or washed into the stream. Earthworms make up a part of the sucker's diet. In the smaller meadow streams to which I confine my angling, the suckers are usually found in the deepest pools. A pool that has a current strong enough to form an eddy containing a sandbar, is usually inhabited by suckers. Old stumps, tree roots, creek banks and bridges, also afford refuge for suckers.

In fishing these spots, the worm should be allowed to float freely and naturally with the current until thrown into still water or an eddy. It is in such places that suckers gather while feeding. If this method does not bring success, different sections of the pool will have to be fished until the school is located. As a general rule, however, they will lie in an eddy or other comparatively still water. Large suckers often lie in a quite strong current, a distance away from the main school.

During the fall, winter and early spring the suckers are healthy and full of vigor. With the coming of warm weather they lose this, becoming sluggish and soft fleshed.

When the worm is picked up by a sucker, ample time must be allowed before setting the hook, as the sucker is slow in getting the bait into its mouth. The large sucker can be distinguished from the smaller one when biting, inasmuch as the small sucker bites in fast jerks and the large one in a slow steady pull. It is rather rare that a sucker will run with the bait although I have experienced such cases. If the suckers are not feeding they can often be induced to do so by going upstream a few yards and stirring up a bit of mud.

Early spring is the usual time for sucker fishing before they start upstream for the spawning beds. Strange to say, I have taken most of my fish during the fall of the year. This is probably due to the fact that the fish are preparing for the spawning season. I also fished a few days out of every month during the winters of 1936 and 1937. During cold



The sucker offers worthwhile sport with the light fly rod.

weather suckers usually feed on days when the sun is shining brightly. Most of my angling is done between the hours of 10 A. M. and 4 P. M. The temperature, which also influences the feeding of the suckers to a certain degree, should be at least 40° Fahrenheit. My reference to temperature also concerns the fishermen. I have found that in temperatures of 40° F., it is difficult to keep warm without the use of a fire.

On several occasions I have fished through the afternoon without catching a single fish until dusk. Between that time and dark meant the difference between success and failure.

When the question of tackle arises, I would suggest a rod weighing between five and six ounces. As in other fishing, a rod that is too heavy spoils the fun of catching the fish. The action of the rod should be stiff to insure proper setting of the hook. The reel and line, of course, will be chosen according to the requisitions of the rod. When fishing in water that is from three to five feet in depth, a four foot leader with a four or five pound test, will suffice. In clear water, the finer the leader used, the greater are the chances of taking fish.

My choice of hook size is number six. With this size hook I have taken suckers from ten to eighteen inches in length.

Enough weight to carry the worm to the bottom of the creek is obtained by wrapping strip lead around the leader about four inches above the hook.

In closing I am going to request that the readers of this article at the first opportunity try this sport. I am certain that the thrills and battle this plucky fighter will give you will reward you handsomely for cold hands, feet, or other discomforts.

## BUTLER SPORTSMEN STAGE ANNUAL DINNER

Celebrating their third annual banquet, sportsmen from all sections of Butler county attended the third annual affair of the North Butler County Hunting and Fishing Club held in the fireman's hall in Petrolia.

Charles French, Pennsylvania Commissioner of Fisheries, told of the propagation and restocking program of the fish commission during the past year and commended the sportsmen of the county for the cooperation which they have given the commission in its efforts to secure better fishing in the county.

Leo A. Luttringer, Jr., chief of the Division of Education of the Pennsylvania Game Commission stressed the need for sportsmen's organizations and later in the program showed interesting motion pictures of the ill fated "Last Raft" on the Susquehanna River and one of the Fox Hunts sponsored by the Petrolia club. Luttringer was one of the survivors of the fatal crash of the last raft in which several persons lost their lives at Williamsport last year.

Frank G. Norris, former county delegate to the State Federation spoke briefly, pointing out the urgent need for predator control and congratulated the Petrolia club for the work they had done for the cause of conservation.

The preacher had just finished a sermon on the duties of wives to mother their husbands.

"I want every woman who will go home and mother her husband to stand up," he cried.

A little woman, who was known to be a trifle deaf, leaped to her feet.

"Ah," cried the preacher, "there is one woman who will mother her husband."

"Mother him?" cried the woman sitting down, "I thought you said to smother him."



## CHAMPIONS FLY FISHING FOR TROUT

The writer being stationed on a building project at Washington, New Jersey, during the past six weeks, writes H. L. Fulkrod, of Gettysburg, had the pleasure of joining with local sportsmen in a special trout season during the month of September. Have you ever fly fished for trout during September? It's quite an experience and one that I will never forget. Late evening, between five and six-thirty, was of course by far the best, there being very few flies or other insects earlier in the day, which was no doubt due to the cold nights at this time of the year. A brown hackle tied on a No. 8 hook seemed to be the most wanted by

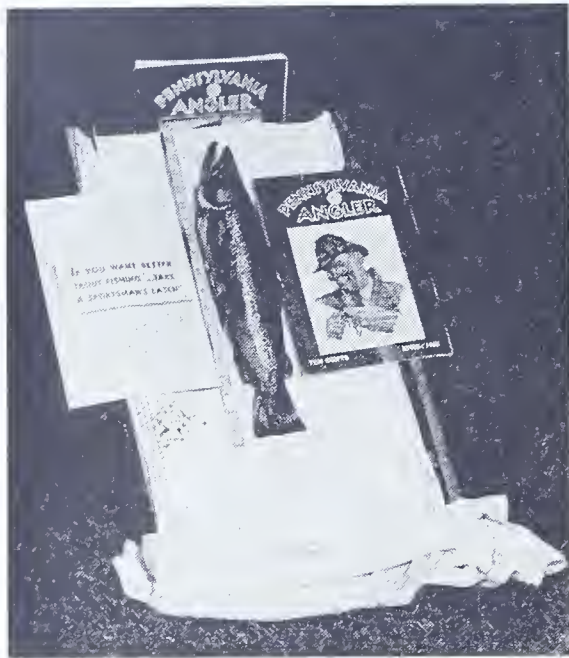


Photo No. 2.

these brownies, although I noticed quite a number being taken with live bait and that hard worked garden hackle.

The local streams seemed to be quite well stocked from the nearby hatchery at Hackettstown and I also noted they were not so over-run with fishermen. This fact was no doubt due to it being a special season, also the fact that

most fishermen had turned to their bass fishing. I wonder how our sportsmen would take to such a proposition? Even perhaps to the extent of closing our season the last of June in order to have September fishing. Also, how it would affect our system of hatching and distribution? This might be at least food for thought.

The attached photos will give you a good idea as to the size of fish being stocked, together with evidence of some real sport. The group of eight were taken on a brown hackle, tied on a No. 8 hook, the evening of September 24th and ran from twelve to eighteen and one-half inches in length. All are brownies and believe you me there was some weight behind them. The writer kills very few fish, but a catch of this size is so rare that he just could not resist the urge to have a photo record of the occasion. Of all taken during this month of fishing, only thirteen were killed, the balance being returned to the stream where they have no doubt provided real sport for other fishermen.

Photo number 2 shows a seventeen and one-half inch brownie taken on a brown hackle on September 14th, while photo No. 3 shows a beautiful brookie and a whale of a brownie, taken September 17th. The brookie lost out on a Royal Coachman and the brownie securely anchored himself to a brown hackle, where he put up a battle that always makes ones heart go bump-bump all over the place. My only regret was that it was necessary to kill them in order to get the photograph.

Our Slogan, "If you would catch more fish—KILL LESS" should be given more thought and followed up by intense publicity in an effort to prove and verify the possibilities and sporting results of returning a legal size fish to the water. I've had a lot of downright fun from this practice. One instance which always stands out in a vivid manner, concerns bass returned during the 1937 season. I fished a certain stream in Adams county, Pennsylvania, most every Saturday evening. One particularly long smooth channel most always provided a couple of nice bass and as I had most always returned all to the water it struck me that perhaps I was catching the same ones at different times. On my next trip up this channel I had three nice rises and landed all of them. Before

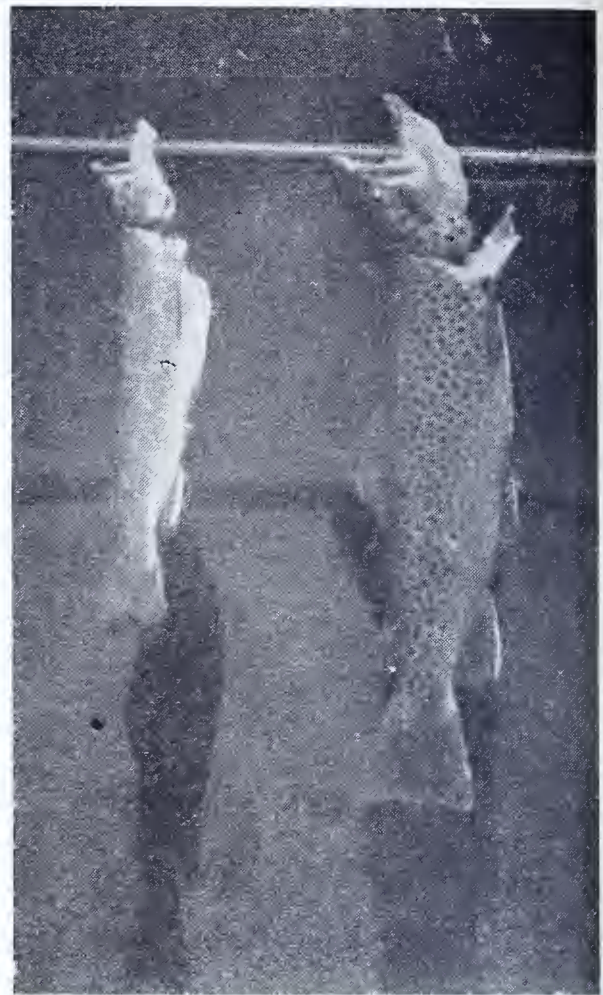


Photo No. 3.

returning them to the water, however, I fastened a small No. 12 Trout fly in the top fin of each bass. Went next Saturday to that particular spot, as I had a sneaking idea that my trout flies were going to show up again. Well, to make a long story short, the first rise produced a twelve inch beauty, but no trout fly. A few moments later smash goes another and lo and behold, there was a fifteen inch dandy still carrying my trout fly and seemingly proud of it. No, I have never seen or heard of the other two being taken, but am of the opinion some other lucky fisherman has scratched his head in amazement and wondered how a trout fly ever became mixed up with the top fin of a fifteen inch bass. If you don't think one can get a real kick out of catching the one you have previously caught and labeled as your own, just try it and I'll guarantee you will agree that it's more fun than putting them in a pan where they provide only ordinary eating at best. A fish killed is like time—once it's past it has gone forever. Also, I am of the opinion most of us would rather have a nice juicy piece of tender steak anyway.

This "new game" is also a first class reason why it's fun to fly fish. Also when one has a few flies, one can fish any time and most any place without trying to find worms in a dry season, or spend one's day off seining out a feeder stream for live bait, only to find that about half of all one seines dies before the day has passed anyway.

The ANGLER has stressed the fact that we do need more food for fish in our streams. You are dead right and flies along with other artificial lures most certainly would go a long way towards solving the matter.



Photo No. 1.



Perhaps an intense publicity campaign, explaining the possibilities and demonstrating through pictures of catches made, showing the direct results obtained through the use of flies might liven up the issue. Along with each picture might be an interesting sketch of the catch, explaining the kind and type of fly used, weather conditions, where fish were taken, date catch was made and any other information available which might help to put the idea over in a manner which would tend to make more sportsmen "fly minded" and not "live bait-minded." Once a fly fisherman always a fly fisherman, as demonstrated by the great number of fly fishermen today when compared to a few years ago. Show me a man who has once caught a nice mess with a fly and I'll gamble that he has quit lugging a minnow bucket around forever.

## "SUB-ZERO" SNAKE

Watersnakes are hardy critters and, if there is any doubt on the subject, the following report on the snake shown below with this article should definitely prove it.

This watersnake, reports Warden Leland Cloos, was caught by Glenn Bolt, of Crooked Creek, Tioga county, on January 16, this year. It was taken from a spring when the temperature was 10 degrees below zero. The reptile was taken to the garage of J. P. Borden, at Crooked Creek, where it was kept in a box for three or four days, during which time Mr. Borden found it very active. He would take the snake out of the box and place it out of doors where it would freeze hard as a rock. Then he would place it in the box and put the box on the stove until the snake again thawed out. This procedure was completed a number of times.

Finally, on the fourth day, he froze the snake very hard and when he put the box back on the stove to thaw it out, he forgot about it for a short time. He later found a cooked watersnake. This specimen was 30 inches in length.



## GOOD TROUT WATERS IN THREE COUNTIES

Warden Lincoln Lender, of Bellwood, Blair county, lists the following excellent trout streams in Blair, Bedford and Huntingdon counties, with directions on how to reach them.

Excellent Blair county streams are Bald Eagle Creek, a meadow and woodland stream yielding brook and brown trout, Bigfell Run, brook trout, mountain stream, Frankstown Branch of the Juniata River, brown trout, Canoe Creek, brook trout and brown trout, mountain and meadow stream, and Clover Creek, brook trout and brown trout, a meadow stream. All of these streams are accessible over highway Route 322 from Tyrone.

Included in the fine trout waters of Bedford county are Potter Creek, Three Springs Run and Beaver Creek. These brook trout streams are accessible by taking Route 164 from Altoona, and following this route from Roaring Spring. Other streams are the Raystown Branch of the Juniata River, west of Bedford along the Lincoln Highway, brown trout, Shavers Run, on Route 220 from Bedford, and Wills Creek on Route 96, from Mann's Choice.

Huntingdon county trout waters include Black Log Creek, on Route 522 from Mount Union, Licking Creek, Laurel Run and Shaver Creek on Route 305 from McAlevy's Fort, and Standing Stone Creek, East Branch of Standing Stone Creek and Greenwood Furnace Dam on Route 545 from Huntingdon.

Lender ranks the following flies as top-notchers for these waters: Gray Hackle (red body), gray hackle (yellow body), Mallard quill, blue quill, blue dun, pale evening dun, clear water dun, ginger quill, brown gnat, hare's ear, black gnat, and silver doctor, these wet flies tied on nos. 12 and 14 hooks.

The Sunday drivers had picked the farmer's fruit and his flowers, and their car was full of plunder. Pointing to an unexplored highway they inquired of the farmer:

"Shall we take this road back to the city?"

"You might as well," replied the farmer, "you've got almost everything else!"

## GOOD SUCKER CATCHES SCORED IN CLARION



Robert Axton and William Greg with their February sucker catch.

Two popular young anglers who work at the Eljer Pottery, in Ford City, Robert Axton, and William Grey, of Manorville, having a day off, decided to try their luck at sucker fishing on February 15, writes Fred Axton, of Manorville. These fishermen are members of a sportsmen's club having a hunting camp in the northern part of Clarion county and to this place they decided to go.

The day was not a very promising one for fishing, being cold and dreary. Nevertheless, they were spurred by memories of the outstanding success which had been theirs at a corresponding time in the same place last year. Not long after the first line was in the water, the suckers, ranging in size from 9 to 16 inches, started to bite. Lines and reels froze quickly and had to be thawed out at the fire.

Before it was time to start for home, Bob and Bill had each secured his limit of 15 suckers. This midwinter catch has encouraged their friends and started a veritable throng of fishermen to the banks of the Allegheny River near Manorville.

## CLIMBS FOR FISH; ARM BROKEN

Merle Shindle, 30, of near Greencastle, Franklin county, figured in an unusual fishing incident last season. Shindle was fishing near the iron bridge over the Conococheague Creek at the Stenger farm, southwest of town, when he felt a tug on his line. He gave the line a pull with such force that the fish landed in the branches of a tree overhead, and there it dangled. Shindle climbed the tree and was reaching for his prize when the limb broke and he fell to the ground, breaking both bones in his left wrist.



# TROUT WATERS STOCKED WITH LEGAL TROUT

In answer to numerous inquiries, the ANGLER presents the following list of streams in Pennsylvania stocked with legal size trout for the coming season. This lists only major waters in the various counties. Other smaller streams are also scheduled for stocking.

## Adams County

Brook trout: Carbaugh Run, Toms Run, Little Marsh Creek; rainbow trout, Chambersburg Reservoir; brown trout, Conewago Creek, Middle Creek and Conococheague Creek.

## Forest, Warren, Elk & McKean

(Allegheny National Forest)

Brook and Rainbow trout, Bear Creek and Big Mill Creek; brook trout, Beaver Run, Blue Jay Creek, Brown Run, Little Coon Creek, Farnsworth Creek, Four Mile Creek, Minister Creek, Ross Run, Six Mile Run, N. Br. Sugar Run, Two Mile Run and Wilson Run; brown trout, East Hickory Creek, E. Br. Tionesta Creek, S. Br. Tionesta Creek, W. Br. Tionesta Creek, W. Br. Tunenewant Creek; brown and rainbow trout, Salmon Creek; rainbow trout, Chappell Fork, Millstone Creek, and Spring Creek.

## Beaver County

Rainbow trout, Brady Run; and Brown and Rainbow Trout, Big Traverse Creek.

## Bedford County

Brook trout, Beaver Creek, Deaner Gap Run, Flintstone Creek, Maple Run, Potter Creek, and Beaver Run; rainbow trout, Koon Lake; brown trout, Bobs Creek, Cove Creek, Cumberland Valley Run, Imlertown Run, Rays-town Br. of Juniata River, Shermans Valley Run, Yellow Creek and Wills Creek.

## Berks County

Brook trout, Back Creek, Mill Creek, Moslem Creek, Mill Creek, Northkill Creek, W. Br. Pine Creek, Swamp Creek and Furnace Run; brook and rainbow trout, Furnace Creek; rainbow trout, Manatawney Creek; brown and rainbow trout, N. Br. Perkiomen Creek, and brown trout, Hay Creek.

## Blair County

Brook trout, Bells Gap Run, Blair Gap Run, Bobs Creek, Sinking Creek and Van Scoyoc Run; brown trout, Bald Eagle Creek, Canoe Creek, Clover Creek, and Piney Creek.

## Bradford County

Brook, brown and rainbow trout, Schrader Creek.

## Bucks County

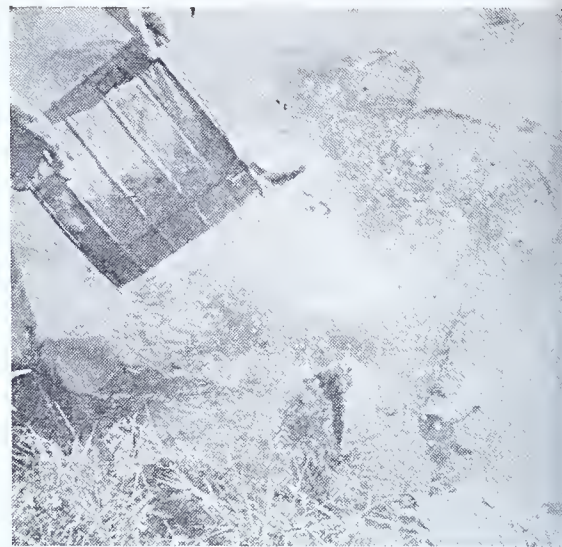
Brown and rainbow trout, Mill Creek; and brook trout, Cooks Creek.

## Butler County

Brown trout, N. Br. Slippery Rock Creek and Little Connoquenessing Creek; brown and rainbow trout, Bear Creek, Silver Creek, and Thorn Creek.

## Cambria County

Brook trout, Beaverdam Run, Bender Run, Bens Creek, S. Br. Blacklick Creek, Cedar Run, Beaverdam Run, Duclos Run, S. Fork Lt. Conemaugh River, Big Laurel Run, and Noels Creek; brown trout, N. Br. Blacklick Creek, Chest Creek, Clearfield Creek, and Slatelick Run; rainbow trout, Curtis Run and Ebensburg Water Co. Dam.



Releasing legal size rainbow trout in Kishacoquillas Creek, Mifflin county.

## Cameron County

Brook trout, Brookes Run, Clear Creek, Hicks Run, E. Br. Hicks Run, Hunts Run, Upper Jerry Run, Lick Island Run, Lushbaugh Run, Mix Run, Portage Creek, Sterling Run and Wykoff Run; brown trout, Driftwood Br. Sinnemahoning Portage Creek.

## Carbon County

Brook trout, Aquashicola Creek, Drakes Creek, Fawn Creek, Hunter Run, James Run, Lesley Run, Mauch Chunk Creek, Pine Run, and Stoney Creek; brown and rainbow trout, Mud Run, and Pohopoco Creek; brook and rainbow trout, Big Bear Creek and Quakake Creek; brook and brown trout, Hayes Creek.

## Centre County

Brook trout, Benner Run, W. Br. Big Run, Black Bear Run, Fields Run, Lt. Fishing Creek, Laurel Run, Big Sandy Run, Lt. Sandy Run, and White Deer Creek; brown trout, S. Fk. Beech Creek, Cold Stream, Marsh Creek, Poe Creek, Sinking Creek, and Six Mile Run; rainbow trout, Poe Valley Dam; brook, brown and rainbow trout, Elk Creek, Lt. Moshannon Creek, Penns Creek, and Spring Creek; brook and brown trout, Pine Creek; brown and rainbow trout, Bald Eagle Creek and Logan Branch.

## Chester County

Brook trout, Beaver Run, Lt. Broad Run, Doe Run, Indian Run, Mathews Run, and West Valley Creek; brown trout, French Creek, and M. Br. White Clay Creek; brook and rainbow trout, Birch Run, and Valley Creek; brook and brown trout, White Clay Creek; brown and rainbow trout, Officers Run.

## Clarion County

Brook trout, Canoe Creek, Lt. Piney Creek, and Lt. Toby Creek; brook and rainbow trout, Deer Creek and Toms Run; brown and rainbow trout, Mill Creek.

## Clearfield County

Brook trout, Anderson Creek, Bilger Creek, Curry Run, Deer Creek, Gifford Run, Hockenberry Run, Hazelett Run, Mix Run, Mont-



A series of stone dams and deflectors as they appear in the Bushkill Creek, Northampton county trout stream.



gomery Creek, Moshannon Creek, Mountain Run, Sawmill Run, Upper Three Runs, Trout Run, Whiskey Run and Wilson Run; brown trout, Bell Run, Lick Run, Mosquito Creek, Sugar Camp Run, N. Wilmer Run and South Wilmer Run; brown and rainbow trout, Laurel Run.

#### Clinton County

Brook trout, Antes Creek, Beaverdam Run, Big Run, M. Br. Big Run, Swamp Br. Big Run, Birch Island Run, Cedar Run, Cooks Run, Hammersley Forks, Hyner Run, Rattlesnake Run, Sandy Creek, and Trout Fork; brown trout, Lick Run, Paddys Run, Tangascootack Creek, N. Br. Tangascootack Creek, Young Woman's Creek, R. Br. Young Woman's Creek and W. Br. Young Woman's Creek; brook and rainbow trout, Kettle Creek, and Baker Run; brook, brown and rainbow trout, Big Fishing Creek.

#### Columbia County

Brook trout, Coles Creek, Lick Run and West Creek; brown trout, Mugser Run; brook and brown trout, Roaring Creek; brown and rainbow trout, Fishing Creek.

#### Crawford County

Brook trout, McKaughlin Run; brown trout, Lt. Sugar Creek and Thompson Run.

#### Cumberland County

Brook trout, Alexandra Run; brown and rainbow trout, Big Spring, Letort Spring, and Yellow Breeches; brook and brown trout, Mountain Creek; brook and rainbow trout, Trindle Spring; rainbow trout, Furnace Run Dam.

#### Dauphin County

Brown trout, Manada Creek, N. Fk. Powells Creek, and S. Fk. Powells Creek; brook and rainbow trout, Stoney Creek; brown and rainbow trout, W. Branch Rattling Creek.

#### Delaware County

Brown trout, Ridley Creek.

#### Elk County

Brook trout, Belmuth Run, Big Run, Crooked Creek, Hicks Run, E. Br. Hicks Run, Island Run, Kersey Run, W. Br. Kersey Run, Laurel Run, Maxwell Run, Medix Run, Mix Run, Paige Run, Spring Creek, Straight Creek, S. Br. Straight Creek, Vineyard Run and Wolf Lick Run; brown trout, Driftwood Branch; brown and rainbow trout, E. Br. Clarion River, W. Clarion Creek and Trout Run.

#### Erie County

Brown and rainbow trout, Beaverdam Run, Conneaut Creek, Lt. Conneaut Creek and S. Br. French Creek; rainbow trout, Pleasant Lake.

#### Fayette County

Brook trout, Back Creek, Beaver Run, Buck Run, Laurel Run, Mill Run, Morgan Run,

Mountain Creek and S. Fk. Mountain Creek; brown and rainbow trout, Dunbar Creek, and Big Meadow Run; brown trout, Big Sandy Run.

#### Forest County

Brook trout, Lt. Hickory Creek, and Tubbs Run; brook and rainbow trout, Coon Creek and Hemlock Creek; brown and rainbow trout, W. Hickory Creek and Maple Creek.

#### Franklin County

Brook trout, Bear Valley Run, Broad Run, Dennis Creek, Red Run, Trout Run, and Trout Run; brown trout, E. Br. Lt. Antietam Creek, Conococheague Creek, W. Br. Conococheague Creek and Muddy Run; rainbow trout, W. Br. Antietam Creek.

#### Fulton County

Brook trout, Brush Creek, Lt. Brush Creek, South Brush Creek, Oregon Creek and Wooden Bridge Creek; rainbow trout, Cowans Gap Dam; brown trout, Lt. Augwick Creek.

#### Huntingdon County

Brook trout, Laurel Run, West Licking Creek, Nine Mile Creek and Saddler Creek; brown trout, Black Log Creek, and E. Br. Standing Stone Creek; brook and brown trout, Spruce Creek; brown and rainbow trout, Standing Stone Creek; rainbow trout, Whipple Dam.

#### Indiana County

Brook trout, S. Br. Twolock Creek and Lt. Yellow Creek; brook and rainbow trout, Laurel Run; brown and rainbow trout, Yellow Creek.

#### Jefferson County

Brook trout, Callen Run, Camp Run, Coder Run, Horam Run, and Mill Creek; brown trout, Big Run, N. Fk. Red Bank Creek, S. Fk. of N. Br. Red Bank Creek and Lt. Sandy Creek; brook, brown and rainbow trout, Clear Run; brown and rainbow trout, Mill Creek and Lt. Mill Creek.



W. M. Dom, ardent Greensburg angler and conservationist, scored this pretty catch of Cedar Run, Tioga county, brown trout in fifteen minutes.



**Juniata County**

Brook trout, Horning Run and Liberty Valley Run; brown trout, Horse Valley Run, Licking Creek, Lost Creek and Willow Run.

**Lackawanna County**

Brook trout, Choke Creek and W. Br. Walenpaupack Creek; brown and rainbow trout, Lehigh River and S. Br. Tunkhannock Creek; rainbow trout, Roaring Brook.

**Lancaster County**

Brook trout, Lt. Conestoga Creek, Donegal Creek, Hammer Creek, Middle Creek, Long Run, Muddy Run, Pequea Creek, Rock Run, and Trout Run; brown trout, Big Chickies Creek and Fishing Creek; brown and rainbow trout, W. Br. Octoraro Creek.

**Lawrence County**

Brown and rainbow trout, Big Run, Deer Creek and Hickory Run; brown trout, Taylor Run.

**Lebanon County**

Brook trout, Bachman Run, Indiantown Creek and Snitz Creek; brown trout, Evening Branch, Gold Mine Run, Hammer Creek, and W. Br. Hammer Creek.

**Lehigh County**

Brook trout, Big Trout Run, Cedar Creek, Iron Run, S. Br. Saucon Creek and Swabia Creek; brook and brown trout, Lt. Lehigh River; brown and rainbow trout, Jordan Creek; rainbow trout, Mountain Creek; brown trout, Trout Creek.



Joe Licini of Allentown snapped this opening day scene on the Little Lehigh last season.

**Luzerne County**

Brook trout, Arnolds Creek, Balward Run, Bowman's Creek, Maple Creek, Phillips Creek, Pine Creek and Shade Creek; brook, brown and rainbow trout, Wapwallopen Creek; brown and rainbow trout, Lehigh River, and Lt. Wapwallopen Creek; brown trout, Harveys Creek, Huntingdon Creek, Kitchen Run, Linesville Creek, Lt. Nescopeck Creek, Lt. Shickshinny Creek and Wrights Creek.

**Lycoming County**

Brook trout, Lt. Bear Creek, Black Hole Creek, English Run, Fourth Gap Run, Hogland

Run, McMurrin Run, West Mill Creek, Lt. Muncy Creek, Upper Pine Bottom Run, Plunketts Run, Trout Run and Trout Run; rainbow trout, Rock Run; brown trout, Blockhouse Creek, Grays Run, Larrys Creek, Loyalsock Creek, Lycoming Creek, Muncy Creek, Lt. Pine Creek, Roaring Branch, Spring Creek, Wallis Run and White Deer Hole Creek.

**McKean County**

Brook trout, Bell Run, W. Clarion Creek, Comes Creek, Five Mile Run, Seven Mile Run; brown trout, Marvin Creek and Potato Creek; brown and rainbow trout, Portage Creek.

**Mercer County**

Brown trout, Lackawanna Creek, Mill Creek, Mill Creek, E. Br. Wolf Creek, N. Br. Wolf Creek, and W. Br. Wolf Creek; brown and rainbow trout, Deer Creek, Lt. Neshannock Creek and W. Br. Lt. Neshannock Creek.

**Mifflin County**

Brook trout, Havice Run, Laurel Run, Lingle Run, and Treaster Valley Creek; brown trout, New Lancaster Creek, Honey Creek and Licking Creek; brook, brown and rainbow trout, W. Br. Kishacoquillas Creek.

**Monroe County**

Brook trout, Aquashicola Creek, Buckwa Creek, Cherry Creek, Dotter Creek, Forest Hill Creek, Kettle Creek, Lake Creek, McMichaels Creek, Middle Creek, Mixsel Creek, Pensyl Creek, and Scott Run; brook and brown trout, Big Bushkill Creek and Pohopoco Creek; brown trout, Middle Brodheads Creek, Pocono Creek and Tunkhannock Creek; brown and rainbow trout, Brodheads Creek, Tobyhanna Creek and Lehigh River; rainbow trout, Snow Hill Dam and Weir Lake.

**Montgomery County**

Brown trout, Deep Creek and Mill Creek.



This nice catch of brown and rainbow trout was made last year on opening day of the season by Bart Snyder of Allentown, R. D., in the Little Lehigh.



**Northampton County**

Brook trout, Bertsch Creek, Coffeetown Run, Greenawalts Creek, Indian Creek, Jacobus Creek and Waltz Creek; brook and brown trout, Monocacy Creek; brook, brown and rainbow trout, Saucon Creek; brown and rainbow trout, Bushkill Creek and Catasaqua Creek; brown trout, Lt. Bushkill Creek, Hokendauqua Creek, Martins Creek and Lt. Martins Creek.

**Perry County**

Brook trout, Browns Run, Green Valley Run, Laurel Run, Liberty Valley Run, Montour Run, McCabe Run, Shaffer Run and Shermans Creek; brown trout, Horse Valley Creek, and Lt. Juniata Creek.

**Pike County**

Brook trout, Lt. Bushkill Creek, Middle Bushkill Creek, Dingmans Creek, Swarfkil Creek, Indian Ladder Creek, Kellam Creek, Middle Branch Creek, Millrift Creek, Panther Brook, Raymondskill Creek, Sanvantine Creek and Twin Lake Creek; brook and brown trout, Big Bushkill Creek; brown trout, Shohola Creek, Wallenpaupack Creek and E. Br. Wallenpaupack Creek.

**Potter County**

Brook trout, Bailey Run, Cushing Creek, Dingman Run, Left Hand Br. Dingman Run, Dodge Brook, Dry Run, Eleven Mile Run, Fishing Creek, E. Br. Fishing Creek, W. Br. Fishing Creek, Genesee River, Lt. Kettle Creek, Lyman Run, Big Moore Run, Nelson Run, Nine Mile Run, S. Br. Oswayo Creek, Oswayo Creek, Genesee Fk. of Pine Creek, E. Fk. Portage Creek, W. Fk. of Portage Creek, Sartwell Creek, Reynoldstown Creek, E. Fk. of the First Fk. of Sinnemahoning Creek, Trout Run, and S. Fk. of the First Fk. of Sinnemahoning Creek; brown trout, Cowanesque River, Cross Forks Creek, Kettle Creek, Mill Creek, Pine Creek, W. Br. Pine Creek and First Fk. Sinnemahoning Creek; brown and rainbow trout, N. Br. Genesee River and W. Br. Genesee River.

**Schuylkill County**

Brook trout, Bear Creek, Beaver Creek, Black Creek, Neifert Creek, Pine Creek and Pine Creek; brown trout, Evening Branch, Fishing Creek, W. Br. Fishing Creek and Locust Creek; brown and rainbow trout, Lt. Catawissa Creek, Deep Creek and Lt. Swatara Creek.

**Snyder County**

Brook trout, Aigler Run, Brickhart Run, Krepp Gap Run, Kuhn-Hooven Run and Swift Run; brown trout, N. Br. Middle Creek; brook and rainbow trout, N. Br. Mahantango Creek.

**Somerset County**

Brook trout, Beaverdam Run, S. Fk. Bens Creek, Blue Hole Run, Brush Creek, Clear Run, Shafer Run, Iser Run, Jones Mill Run, McClintock Run, Sandy Run and Tub Mill Run; brook and rainbow trout, Drakes Run; brown trout, Beaverdam Run, Piney Creek, Beaverdam Run, Deeter Run, Flaugherty Creek,



Warden C. Joel Young about to release some fine brown trout in the Little Lehigh Creek.

Raystown Br. Juniata River, Big Piney Creek, Stoney Creek and Wills Creek; rainbow trout, Koosers Lake; brown and rainbow trout, Clear Shade Creek, Laurel Hill Creek, and Whites Creek.

**Sullivan County**

Brook trout, Black Creek, Double Run, Elklick Run, Glass Creek, Lewis Creek, Lick Creek, N. Br. Mehoopany Creek, Mill Creek, Pigeon Creek, Pole Bridge Run, Rock and Rock Run; brown trout, Elk Creek, E. Br. Fishing Creek, W. Br. Fishing Creek, Hogland Branch, Kettle Creek, Lopez Creek, Loyalsock Creek, Lt. Loyalsock Creek, Muncy Creek, Ogdonia Creek and Sullivan Branch.

**Susquehanna County**

Brook trout, Mitchell Creek, Nine Partners Creek and Riley Creek; brook, brown and rainbow trout, Starrucca Creek; brown trout, Butler Creek, Gaylord Creek, Gibson Creek, Harding Creek, Harmony Creek, W. Br. Lackawanna Creek, E. Br. Lackawanna Creek, and E. Br. Tunkhannock Creek; brown and rainbow trout, Tunkhannock Creek.

**Tioga County**

Brook trout, Elk Run, Fall Brook, Four Mile Run, Long Run, Long Run, Mill Creek, W. Br. Mill Creek, Phoenix Run, Sand Run, Straight Run, Left Br. Straight Run and Right Br. Straight Run; brook and brown trout, Tioga River, and Asaph Run; brown and rainbow trout, Pine Creek; brown trout, Blacks Creek, Blockhouse Run and Stoney Fork Creek.

**Union County**

Brook trout, Bear Run, Beaver Run, Halfway Run, Sand Spring Run, and Spruce Run; brown trout, Buffalo Creek, Lt. Buffalo Creek, N. Br. Buffalo Creek, Laurel Run, Rapid Run, Spring Creek, Weiker Run, and White Deer Creek; rainbow trout, Halfway Dam; brown and rainbow trout, Penns Creek.

**Venango County**

Brook trout, Cherry Run, Hemlock Creek, Horse Creek, Mill Creek, Porkey Creek, Prather Run, Tarr Kill Creek, and Stewart Run; brown trout, Sugar Creek, E. Br. Sugar Creek, East Sandy Creek, S. Br. Sandy Creek and Lt. Sandy Creek; brown and rainbow trout, Upper Two Mile Run, Pithole Creek, West Pithole Creek, Scrubgrass Creek, Lt. Scrubgrass Creek, N. Fk. of Lt. Scrubgrass Creek and S. Fk. of Lt. Scrubgrass Creek.

**Warren County**

Brook trout, Ben George Creek, Blue Eye Creek, Coffee Creek, Hemlock Run, Lamb Run, Perry McGee Run, McGuire Run, Phelps Creek, Rock Hollow Run, N. W. Br. Spring Creek, Tidioute Creek, and Wilson Run; brown trout, West Hickory Creek, W. Br. Caldwell Creek and Caldwell Creek; brown and rainbow trout, Lt. Brokenstraw Creek, Brokenstraw Creek and E. Br. Spring Creek; brook, brown and rainbow trout, Pine Creek.

**Wayne County**

Brook trout, Babitville Creek, Beaverdam Creek, Calkins Creek, N. Br. Calkins Creek, S. Br. Calkins Creek, Big. Br. Dyberry Creek, S. Br. Equinunk Creek, Shad Pond Creek and E. Br. Starrucca Creek; brown trout, Butter-nut Creek, Lackawaxen River, Middle Creek, Shehawken Creek and Wallenpaupack Creek; brook and rainbow trout, W. Br. Dyberry Creek; brook and brown trout, Lt. Equinunk Creek, and Lehigh River; brook, brown and rainbow trout, Johnson Creek, W. Br. Lackawaxen River and W. Br. Wallenpaupack Creek; brook, brown and rainbow trout, Johnson Creek.

**Westmoreland County**

Brook trout, Baldwin Run, Camp Run, Furnace Run, Mill Creek, Middle Fk. Mill Creek, North Fk. Mill Creek, S. Fk. Mill Creek, Pike Run, Powder Mill Run, Roaring Run and Shannon Run; brown trout, Indian Creek, Jacobs Creek, Loyalhanna Creek, Tub Mill Run and Linn Run.

**Wyoming County**

Brook trout, Leonards Creek and Beaver Run; brook and rainbow trout, N. Br. Mehoopany Creek; brown and rainbow trout, Bowmans Creek; brook, brown and rainbow trout, Mehoopany Creek.

**York County**

Brook trout, Beaver Run, Fishing Creek, Kaltreiders Creek, Leibs Creek, Orson Run, Rambo Run, Rehmayer Hollow Run and Toms Run; brown trout, Furnace Run; brown and rainbow trout, Otter Creek; rainbow trout, Haldeman Pond.





Members of the Harrisburg Hunters' and Anglers' Association stocking legal size rainbow trout in Stony Creek, Dauphin county (above). Below, left, fishing a promising stretch of water in Stony Creek last season. Right, a catch of fine rainbows scored in Stony by Howard George, Harrisburg, last season.

Photos by Howard George.

## TODAY'S FLY LINES

(Continued from Page 4)

backs are its price and the fact that only one end is tapered. These two are amply offset by its merits. Long casts when necessary, and they sometimes are, are easily made by the average caster. All records of distance casting are held by this type of line. Tremendous "shoots" are possible without placing undue strain on the rod. By picking off the water 45 or 50 feet of line, a "shoot" of 20 to 30 feet of line is not uncommon, especially after a little practice. This is truly an important feature of this line and an almost unheard of thing with a level or double taper line. Its best selling point undoubtedly is the ease with which beginners learn to cast with it. Information from authentic sources tells of instances where persons of absolutely no previous casting experience have been taught to cast well in 15 to 30 minutes.

Whatever one's choice of lines may be, the first and most important point is to get one that fits the rod. The trend of rod building today seems to be toward what is known as "dry fly action." These rods will not perform satisfactorily if used with the illfitting, light weight, small diameter lines so prevalent years ago when rods resembled more than anything, a willow switch. The deep enjoyment of angling can only be attained if that part of your equipment is correct, and therefore it should be

given the same sane judgment one uses in selecting flies.

### Line Making

With the advent of the three diameter lines, a new group of sportsmen has developed—the line splicing fellows. Because of the increased interest in the making of the new "torpedo heads" I feel it would not be amiss to dwell on this phase, one of the many which only dyed in the wool anglers can enjoy. The first move is to obtain the necessary materials and tools. The former consists of a spool of winding silk of size 2-0 and a small amount of quick drying varnish; the latter, a small scissors, and a stiletto or medium sized needle. The lines can be procured from any reliable manufacturers. Mill ends are a good thing to use. Get them in sizes from .020 to .060.

### Splicing

On paper, set down the approximate sizes and lengths of line you want to use. A good practice is to use more length for each section than you think will be satisfactory. You can easily shorten them if you find the line too heavy. Cut your lines and using the stiletto, pick out the ends of each piece. The frayed end should not exceed  $\frac{1}{2}$  inch. Between  $\frac{3}{8}$  and  $\frac{1}{2}$  inch will be satisfactory. You can then separate the frayed ends into three or five even fingers and

interlock the two pieces or use the over lapping method. For the actual winding of the splice, a fishing buddy is invaluable. Have him hold the two pieces securely, keeping the ends in position while you wind. The winding should start in the center and run to one end. With another piece of winding silk repeat the operation on the other end, starting in the center. If you wish you can then wind over the entire splice from one end to the other. The windings should be very tight and finished off in the same manner as rod windings. Before rubbing the varnish into the finished splice, remove fuzz from winding by touching lightly with a match flame.

When line is finished and casting is tried, and you find it too heavy for the rod, cut out about a foot each time from the heavy portion until the proper weight is obtained. If the weight seems proper but the line does not straighten correctly, remove small pieces from the front and back tapers. Experiments with various diameters and lengths will eventually give you a nice line and in the meanwhile, you benefit by the casting practice.

The finished line will not be comparable to the manufacturers' products. The tapers cannot possibly be as smooth nor will you have a good counter balance portion; but in this manner you can have several good fishing "torpedo heads"—the lines of today.



## TWELVE DRY FLY ACES

(Continued from Page 3)

ringneck pheasant tail feather; wings, gray drake breast feathers dyed a pale greenish yellow.

### No. 6. Red Quill (Female Hendrickson)

Body, red quill stripped from a red hackle; hackle, rusty dun; tail, rusty dun; wings, Mandarin.

### No. 7. Little Marryat

Body, Australian Opposum; hackle, cream; tail, cream hackle tips; wings, light gray fibres from a Mallard wing quill.

### No. 8. Fanwing Royal Coachman

Body, Peacock and red; hackle, brown; tail, golden pheasant tippet; wings, white fans from a duck's breast or the bow of a duck's wing.

### No. 9. Gray Spider

Body, gold tinsel; hackle and tail, blue dun; wings, none.

### No. 10. Wickhams Fancy

Body, gold with brown hackle tied palmer; hackle, brown; tail, brown; wings, slate gray fibres from a duck wing.

### No. 11. Badger Bivisible

Badger hackle tied palmer sparsely two thirds of the length of the hook and more dense near the eye. A few turns of white hackle at the head to make the fly more visible. This pattern is one of the outstanding bivisible patterns for the duration of the entire season.

### No. 12. Brown Bivisible

The brown Bivisible is tied the same as the badger, substituting brown hackle. I would suggest that one carry an assortment of different color bivisibles, but if I were to choose two patterns they would be the badger and brown.

You will notice that I have not mentioned several of the prominent patterns. Among these are such flies as the Ginger Quill, but a light Cahill and the Ginger Quill compare so favorably that they more often cover the same pattern.

I have also omitted the black gnat for the reason that no other fly covers the needs better, when these flies are a necessity, than a small badger bivisible.

The larger stone flies are usually fished wet and for that reason I did not include them in the dry fly list. The smaller yellow stone flies or yellow sallies can well be imitated with a light ginger bivisible.

In some sections flies vary in size and coloration. Whether this is due to food or climate or both, I have been unable to ascertain, but the difference is so noticeable that sometimes we are at a loss as to how the artificial should be dressed. A specific example of this was brought to my attention, when in 1934 I collected and preserved an assortment of Green Drakes (*Hexagenia limbata*) and tied patterns from the preserved specimens. Several weeks



John Werst, Alburtis, with a 26 inch, 5 pounds 2 ounces brown trout taken last season in the Little Lehigh.

later I was given several flies tied by a friend of mine from Centre County and I was disappointed to find that the color of his flies did not correspond very well with those I had tied. Knowing this acquaintance of mine to be a close student of coloration and a very good fly tier, I began to investigate, and found that the color of the flies taken from Penn's Creek in Centre County and those taken from Clark's Creek in Dauphin county does vary and the peculiar part of the whole affair is that the Green Drakes on Clark's Creek are from stock caught on Penn's Creek and planted in Clark's Creek. And there is a thought worthy of mention. We have collected flies on various streams and released them on local streams with the idea of propagation in mind and we found that our experiment was a success. This of course cannot be accomplished so well with the smaller flies, but such species as the drakes and stone flies can be successfully collected and transported in screen cages.

An interesting as well as exciting thing occurred during Shad Fly season of 1935 that illustrates the reason for feeling that an exact replica of any insect is unnecessary. Billy Ibberson, a veteran Penn's Creek fisherman, persuaded me to tie him several bivisible type flies on number eight hooks, the hackles being a pale yellow color and large enough for at least a number four hook. These flies, if flies they could be called, resembled pom-poms more than anything else and the owner became the object of quite a bit of good natured ribbing about his assortment of fuzzy-wuzzies.

Along towards dusk when the drakes began to appear as if by magic, Billy deliberately,

though a bit scornfully tied to his leader one of these gill tickling creations and deftly switched it toward the middle of the stream where he knew a good trout was feeding. That fly never did light on the water. Before it had completed its descent to drop on the water two pounds of fighting brown trout had intercepted it and the battle was on. After landing the trout, Billy decided it was his turn to do a bit of ribbing.

Unhesitatingly I produced from my pocket a box where I had secretly stowed away a few pom-poms and passed them among the fellows. We were all pom-pom fishing, and then the oddest experience of my fishing career occurred. One of the fellows fishing directly opposite the position I had taken began casting to the center of the stream where a large trout was gorging himself with shad flies.

Our lines accidentally became tangled and in trying to free them our flies dangled above the water. Trout seemed to come from all directions after those grotesque looking gobs of hackle. Time after time those trout would leap clear of the water, grab at the fly, and drop back again unharmed. After several minutes of this procedure one old lunker hit the flies so hard they became untangled and the fun was over. We did learn however that by raising the rod tip slightly at the moment the leader was extended, the fly would drop back a bit and start its downward flight so slowly that many strikes occurred before the fly hit the water.

Since the Shad Fly or Green Drake is most difficult to imitate owing to its size and general graceful appearance, I spent considerable time experimenting with this pattern and find the following dressing very good. In the imago stage the Wings, Gray barred Mallard Drake dyed pale yellow, Body, Light yellow or cream color floss over which a piece of rubber substance known commercially as sterilastic is pressed; Legs, Pale yellow hackle; Tail, Three strands from a cock pheasant tail.

While many varied patterns of the drake flies are offered for sale, the type with turned up bodies are realistic looking enough, although more expensive and quite unnecessary, because when this fly appears on the water a feeding orgy usually begins and as this usually occurs in late evening the trout are not too selective to take a fly with a straight tied body.

The Spinner stage, or Coffin fly as it is sometimes called, is dressed quite differently and is a good pattern for local streams. It is dressed as follows.

Wings, dark barred Mallard drake or teal feathers; Body, white silk covered with sterilastic; Legs, color ranging from dark gray to black; Tail, three strands of cock pheasant tail.

In reference to the material used for translucent bodies, the rubber material mentioned looks like sheet sponge rubber, and will adhere readily to itself, but will not cling to other substance. By cutting a piece the length of the body and placing it underneath the hook and horizontal with the shank it can be stretched up along the sides of the silk and pressed firmly together at the top. If stretched properly the body silk will be plainly seen through the rubber covering and produces a very life-like translucent effect.



## REVIEW OF BOARD'S WORK DURING 1938

The year 1938 was the first time the Fish Commission had authority to set up rules and regulations governing fishing in the inland waters. The important changes which were made in the size, season and number of any species, was an increase in the size of bass from nine to ten inches—placing the rock bass in the sunfish group—and a reduction in the creel limits on trout, black bass, pike-perch, pickerel, yellow perch, sunfish, catfish, suckers, baitfish, fishbait, etc.

There were also many requests from all sections asking for some regulation which would prohibit fishing in waters inhabited by trout before the opening of the trout season.

With exception of the size limit on bass, the changes have met with apparent satisfaction in all sections of the Commonwealth. Shortly after the opening of the bass season, many letters and petitions were received asking that the size limit be returned to nine inches.

For several years the Board has been making studies in various waters in connection with the black bass and felt that a ten inch size limit was a real conservation measure, but it would depend mainly on the available food supply.

Unfortunately the taking of bait-fish and fish-bait as provided under the old law was a toll which many of our waters were unable to stand with the result that the depletion of food reached the point where in our opinion it seriously affected bass waters and that in a great many streams bass were not reaching a size of more than eight or nine inches, which was caused mainly by an insufficient food supply.

With additional information received from the Board's survey men, it was decided that in setting up the new rules and regulations for 1939, the size limit on bass should be returned to nine inches, which has been done.

We respectfully request those who are in favor of an increased size to contact the Board so we may have their opinion. Any letters on the subject will be given serious consideration. We believe the majority of bass fishermen will be in thorough accord with the following data on the baitfish situation:

We believe the average fisherman will agree the Board has been far too liberal with those taking bait. Prior to 1938, it had no control. Last year, rules and regulations permitted all persons to have fifty bait-fish and fifty fish-bait in possession without prosecution. The ruling was made primarily to assist those who had been in the habit of securing bait-fish for sale.

The regulations for 1939 provide that no person may have in possession more than thirty-five bait-fish or thirty-five fish-bait, and not more than fifty of the combined species. In reducing the number by more than fifty per cent, the Board believes it will work no hardship on any one and should provide sufficient bait for the average fisherman.

At the December meeting action was taken formulating a program which will place the Board in a position where minnows can be furnished in much greater numbers for planting, and with the completion of the Bellefonte Hatchery and the \$100,000 program which is being carried on at Huntsdale, we are confident we will be able to greatly increase our minnow distribution. Arrangements have already been made for a study which will cover the propagation of the crayfish, helgramite, etc.



A sucker fisherman with his catch on the Jordan Creek near Allentown.

With the proper food supply, there isn't any question but that the future bass situation in Pennsylvania will be indeed bright. The distribution of bass this year was well over 500,000, which is a tremendous increase over previous years, and with the new hatchery additions completed, there will not only be additional bass, but increased numbers of forage fish for our various waters.

### Sucker Fishing

Here's a real problem and one which the Board feels must be solved by the combined efforts of the Commission, the Federation, individual sportsmen's clubs, and the fishermen in general. Experience has shown that to set up any hard and fast rule which would prohibit fishing in trout streams for suckers before the opening of the season would be the wrong procedure to follow, unless it had the combined approval of everyone in the district where it was done.

The sucker fishermen are numbered by the tens of thousands and probably get as much enjoyment from this method of fishing as the trout and bass fishermen.

Early in 1938, many letters and petitions were received asking that some regulation be set up. After considering the question from all angles, it was decided the only proper way to approach the problem would be to submit it to the Federation at their next meeting in February and ask their opinion, which would be a cross-section of the entire Commonwealth.

In discussing the matter with the groups where the question had been brought up quite

forcibly, the result was the posting of the upper waters of one or two streams in their county with the suggestion that no fishing be done in the portion of the stream posted. This worked out very satisfactorily in these counties and apparently the majority of complaints were eliminated.

The Board respectfully asks that if this is a problem which is worrying your group, that you give it consideration at one of your meetings and then advise the Board what your particular wishes are in the matter.

## CONNECTICUT URGES SAVING FISH SCALES

Connecticut sportsmen are urged to help the State Board gather vital information by saving the scales from any game fish which they might catch. Special envelopes, with directions for taking scale samples, will be given to clubs or individuals upon request.

The life story of each fish is recorded in the structure of its scales, and to the careful reader of this diary is revealed the experiences of the fish during its lifetime. The fat years and the lean years, the winters, the spawning times, and age at death are told. If sufficient information on length is taken at time of capture it is even possible to tell how large the fish was at any given age. When it is realized how much information can be learned from the study of fish scales, it is easy to understand why this work is a most important tool of modern fisheries work.

This appeal for help is made because it is believed there are many sportsmen who are sufficiently interested in fish conservation methods to take an active part in carrying on the work. Response to this request will be of great help to the Survey, because the field force can cover more lakes during the summer months. Even with nets and seines much time is used in collecting fish.

During the summer of 1938 the State Board of Fisheries and Game started a lake and pond survey to gather data about our impounded waters and to make plans for better fishing. It is planned to continue and expand this work until the important lakes of the State have been covered. In the past, restoration methods had consisted almost entirely of stocking without consideration of physical and chemical factors.

The Survey makes chemical and physical examinations of the water, studies the fish food supply, the food habits of fish, and examines fish for disease and parasites. Spawning is studied and the abundance of the various fishes noted. In this way the kind of fish best suited to the water can be told. We need to find how well the capacity is being used by the game fishes present before good restoration methods can be started. For example, it often happens that rich lakes do not produce a big crop because stocking and laws have favored fishes ill-suited to the body of water, or to an unproductive combination of species. Sometimes it is found that the game fishes are growing very slowly because there are too many young fish for the food supply, and stocking only makes things worse. Study of the scales shows whether or not the rate of growth is too slow.

If those supplying scales to the Department desire, they will be informed as to the age of the specimens sent in.



NURSERY WATERS CLOSED BY BOARD

The Fish Commission has announced closing of the following streams to serve as nursery waters. All fishing on these streams is prohibited until July 31, 1943. Here is the list:

Berks County—*Tributary to Furnace Creek*, Heidelberg Township, Berks County, for a distance of one mile, starting at headwaters of dam located on tributary, and *Ontelaunee Lake*—section requested by Federated Sportsmen's Clubs of Berks County.

Butler County—*Municipal Reservoirs* of Boro. of Zelenople.

Cameron County — *Crooked Run* — entire length, *Finley Run*,—2 miles, *Fishing Creek*, trib. to Driftwood Branch, *Big Spring or Big Spring Draft*, trib. to Wykoff Run, *Whipoorwill Run*, trib. to East Branch of Hicks Run, one mile long, and *Little Fork*, trib. to mix Run, one and one-half miles long.

Carbon County—*Fireline Creek*.

Centre County—*Game Refuge No. 33*.

Clearfield County—*Game Refuge No. 93*, all tributaries of *Hazlett Run* and all tributaries of *Curry Run*.

Clinton County—Following tributaries of Kettle Creek: *Trout Run*—from the Fork up stream, *Walters Run*, entire length, *Bearfield Run*—entire length, *Hevner or Hebner Run*—entire length, and *Spicewood Run*—entire length.

Clinton and Centre Counties—*Beach Creek* from Dam at Beech Cr. to Orviston.

Crawford County—*Pymatuning Sanctuary*, *Game Refuge No. 10*, *Northern and Shenango River*, below Dam at Pymatuning Lake.

Elk County—*Rocky Run*—from source 2 miles, *Windfall or Cherry Run*—2½ miles from mouth to source, *Clear Creek*—from source 3½ miles, *Smith Run or Rocky Run*—entire length, *Hyvie Run or Spring Run*—entire length, *Falls Shanty or Auman Hollow*—entire length, *Fallshanty*—three miles flowing into the E. Branch of Kersey Run, *Spring Run*,—from what is known as "Bony Gerg's Bridge" to source. This is head waters of Spring Run and about 5 miles in length; all tributaries of *Mill Creek*, and all tributaries of *Bear Creek*.

Elk and Forest Counties—*Maple Run*, trib. Bear Creek—3 miles, *Cherry Mill Run*, trib. Big Mill Creek—2½ miles.

Lancaster County—stream running through Public Park at Lititz (exhib.)

Lebanon County—*Game Refuge No. 80*.

Luzerne County—*Sugar Notch Dam*—about one third, and approximately 4 acres of *Harveys Lake*.

Lycoming County—*Pleasant Stream* and all tributaries, all tributaries of *Pine Creek* and all tributaries of *Lycoming Creek*.

McKean County—*Fly Brook*, trib. Willow Creek—2½ miles, *Wintergreen Run*, trib. Kinzua Creek—2 miles, *Brown Valley*, trib. N. Fork Sugar Run—1½ miles, *Right Hand Branch* of W. Br. Tuna Creek—1 mile, *Blind Robin*, trib. Main Sugar Run—2 miles, and *Game Refuge No. 61*.

Montgomery County—2 ponds on Howard Beidler Property at Abrams, one pond on Frank Henkins Property at Collegeville, one pond on G. B. French Property at Graterford,

and 2 ponds on Joseph Hippel Property at Norwood.

Pike County—*Portion of Pecks Lake*—above wire on E. Br. inlet Egypt Mill Dam, and *Portion of Promised Land Pond*.

Potter County—*Game Refuge No. 59*, *Aur. Refuge No. 10*, *Blumendal Run*, trib. to Little Kettle Creek, two miles long, *Lutz Run*, trib. to Pine Creek, one mile long, *Upper Dry Run*, trib. to West Branch of Pine Creek one mile long, *Beach Flap Run*, trib. to West Branch of Pine Creek, two miles long, *Wetmore Run*, trib. to West Branch of Pine Creek, four and one-half miles long, *Barns Brook*, trib. to Cushing Creek, five miles long, *Boligh Run*, trib. to Cross Forks Creek, two miles long, *Elklick Run*, trib. to Cross Forks Creek, two miles long, *Crowell Run*, trib. to Nine Mile Creek, one and one-half miles long, and *Splashdam Run*, trib. to Lyman Run, two miles in Susquehannock Dist. State Forest.

Schuylkill County—*Nursery Pools* on the old Schirner Farm, Schuylkill county—request of Tamaqua Rod and Gun Club, Tamaqua.

Somerset County—*Blue Hole Run*, trib. Laurel Hill Creek, and *Three Miles of Brush Creek*, trib. to Wills Creek.

Tioga County—*Hills Creek*—1½ miles, *Norris Brook*—1½ miles, *All of Blue Run*, Jameson Creek down as far as the State owns; All tributaries to Pine Creek as follows: *Little Slate Run*—1½ miles, *Little Four Mile Run*—1½ miles, *Colton Branch* of Four Mile Run—¾ mile, *Four Mile Run*, above highway bridge—2½ miles, *Painter Run*, above highway bridge—1 mile, *Mill Run* above forks—3 miles, *Lick Run*, above Deerlick Hollow—2 miles, *Steele Run*—1 mile, *Little Asaph or Right Branch*—1½ miles, *Schambacher Hollow Run*—1 mile, *Right Branch* of Straight Run—1½ miles, and *Elk Run*, Above CCC Camp—1 mile.

Warren county—*Four Mile Run*, trib. Tionesta Creek, all tributaries and *Long Run*, also *Ludlow Br.* of same stream, *Farnsworth Run*, Trib. Tionesta Creek, from source of point 1 mile below Hermit Spring, also *Crisswell Branch*, *Headwaters of Brown Run*, including all of *Hook Run*, *Fluent Branch* and upper 1½ miles of *Brown Run*, *Dedman Run*, trib. to Spring Creek, one-half mile, and *Greeley Run*, trib. to Spring Creek, three-fourths mile long.

KOCH AGAIN HEADS MILTON SPORTSMEN

Charles T. Lontz resigned as secretary of the Milton Fish and Game Association at a meeting in the Moose hall. Donald L. Fulmer was elected to succeed him. The other officers were reelected as follows: President, Kenneth M. Koch; vice president, George J. Yocum, and treasurer, Leroy K. DeHart.

Members abandoned plans for constructing a rearing pen, but decided to cooperate fully with the Game Commission in all stocking projects. More than fifty bushels of corn and scratch feed were distributed in the vicinity of Milton during the past winter for both small and large game.

A lunch was served after the meeting.

MONROE EXHIBIT LAUDED AT SHOW

Judged by observers to be the "No. 2 exhibit" at the National Sportsmen's Show from the standpoint of natural beauty in detail, the Monroe Pike Sportsmen's Association woodland trout scene will be recommended by New York newspapers and big news services for a spot of publicity.

Observers who have viewed the scores of elaborate exhibits at the entire show covering three floors of the Grand Central Palace, have advised officials of the general committee handling the exhibit that the Monroe-Pike exhibit is excelled only by the exhibit of the State of Maine, which covers many times the space and is a complete Maine woodland hunting scene, including all types of live game animals found in Maine.

Jack Dean, an ardent sportsman and viewer of the Monroe county exhibit last night, contacted various resort interests whose connections with New York City newspapers are close. He advised them that this county should reap its due publicity for the exhibit, which was designed and completely installed by the LaBar Rhododendron Nursery.

Thus far, Mr. Dean pointed out, much less attractive exhibits have received much publicity, while the Monroe-Pike exhibit on the basis of merit alone completely outdistances them. Maine's great exhibit is a natural result of having resources of an entire state at the command of the sportsmen there.



Drought last year had a telling effect on this woodland trout stream.





This special V-type deflector, was built with the intention of cutting a channel in a wide shallow of the stream.

## KEY MEN AID IN LYCOMING STOCKING

A quarter million fish are more than the ordinary angler ever will see—or can even imagine, for that matter—but the time is now at hand for beginning the 1939 stocking program of the Consolidated Sportsmen of Lycoming County in the course of which about that many fish of all varieties will be planted in the streams of the county, writes Richard F. Williamson, Outdoor Editor of the *Williamsport Grit*.

And right ready for the job is the "father" of the fish planting program in Lycoming County—W. H. (Bill) Corson, of 821 Cherry Street, this city, who has been plugging away at the job of stocking streams since 1922 and who has created a corps of more than a hundred sportsmen who are associated with him in the work.

From hatcheries operated by the federal and the state governments, and from the hatchery which the sportsmen's group itself maintains, will come the tens of thousands of fish of all varieties for streams both large and small in this vicinity this year.

The job begins about the middle of this month, tapers off a bit from the middle of April through the summer season, and then is finished with full force during the autumn months.

Last year a grand total of 218,530 fish were planted in county streams—an increase of 60 per cent, incidentally, over the total for 1935, when 137,758 were planted.

There's no guesswork about these figures. Bill Corson has them all in a thick book in his taxidermy shop, along with long lists of sportsmen who through the years have aided him in his work as chairman of the fish committees of various sportsmen's organizations of the past and now of the Consolidated Sportsmen of Lycoming County.

Of last year's total, incidentally, 91,600 fish were fingerling trout placed in feeder streams in the county to thrive and reach legal size and furnish thrilling sport for anglers. From the fish hatchery maintained by the sportsmen's group came 18,430 more fish. The state contributed 120,330 fish, and 6,600 trout were obtained from hatcheries operated by the federal government.

The allotment for 1939 is not definitely

known, of course, but if records of past years are any indication, the stocking to be done this year will be even more extensive than in 1938.

Because the trout season is the first to open—trout are the first fish to go into the streams. The first consignments will arrive about the middle of this month, and a heavier supply will come the first of April.

Before opening of trout season about 25 per cent of the state's quota will go into the streams. Then from April 15 until about the first of August bass, food fish, and minnows will be stocked principally, and during the last four months of the year other heavy consignments of trout will be divided among the streams of the county which are open to public fishing. Last year the job was not completely done until in December.

Minnows, which supply food for bass and trout, are more heavily stocked than in former years. Last year the total placed in the streams of the county reached 30,000.

There's a tremendous lot more to the job of fish stocking than just haphazard dumping of cans of trout and bass into the waters of convenient creeks and brooks, however.

Aiding Bill Corson in his distribution are about 100 key men, chosen so that they cover completely the scores of streams of all sizes which flow through Lycoming County. Each one of these committee members has his own helpers—often as many as half a dozen—and when a truckload of fish arrives in Williamsport for the hatchery, these men are contacted by Mr. Corson and the fish given to them to put in the streams.

But there is even more than that to the job. Members of Mr. Corson's committee and other interested sportsmen are constantly studying the streams under their supervision, and the planting of fish is done according to carefully laid plans to keep all streams in peak condition.

Plenty of fish of legal size of all kinds are stocked during the course of a season, but because of the nature of the waters in this county and the outstanding interest in trout fishing among sportsmen in the county, emphasis is laid on building the foundations of a never-ending reservoir of good trout fishing.

Do you wonder what became of the 91,600 fingerling trout which were stocked in Lycoming County last year?

Well, the answer is simple and amazing. They were divided among about 150 small

streams which flow into the favorite trout streams in the county. Feeder streams these brooks are called. There the fingerlings live and thrive until they are able to make their own way in the world—when nature will impel them to swim into the larger streams and some day have to make the choice between an artificial fly and a real bug or a worm that has a steel hook inside its body and one that has been washed into a creek by a rain.

Even more interesting is this fact. Of these 150 feeder streams in which baby trout are planted, the headwaters on 46 are closed to fishing. That is, fishing is prohibited within two miles of the source of each of these 46 feeder brooks, of which 37 are on state-owned land and 9 on privately-owned land.

Under the guidance of Mr. Corson this creation of so-called nursery streams is progressing rapidly. The program is being broadened through the signing of agreements with land-owners permitting the sportsmen's organization to close the headwaters of feeder brooks.

Think what 46 streams, each closed for two miles at its source, means. That is 92 solid miles of trout water in which all fishing is prohibited and in which thousands of baby trout are growing.

A fish hatchery in itself!

Bill Corson is a real veteran in this fish stocking science. His program in Lycoming County, in fact, has been widely copied in other parts of the state and has brought him high praise from experts in the science of fish conservation.

It was a one-man job when he began it, back in 1922, for the Newberry Sportsmen's Association. Only the big streams were stocked, and they with comparatively few fish.

Brown trout were not stocked at all until about ten years ago, and in 1935 only 900 bass were placed in county streams, as compared to 9,000 in 1938 in Lycoming, Loyalsock, Pine, and Muncy Creeks.

There were few men able to help—or rather, interested enough to help—in the early days, but this year Mr. Corson will have probably the largest corps of assistants in the history of his work.

Nor has the program reached its limit.

Expansion of the nursery stream program is of vital concern.

Stocking of greater numbers of minnows and other food fish in the streams is another pet project.

Still another that holds alluring possibilities is an experiment now being conducted with the propagation of rainbow trout on Rock Run. Last year 1,800 rainbow trout from 6 to 12 inches in length were placed in this beautiful stream. Apparently they are thriving there, and some are finding their way into Lycoming Creek, into which Rock Run flows. Rainbows are considered by many sportsmen to be the gamest members of the trout family, but because of spawning habits they have been difficult to maintain in streams in this section of the country.

What is Bill Corson's favorite fish:

"The brown trout," he explains, "because it is a tough guy that takes care of itself; it gets big enough to smash the tackle of careless anglers, and it furnishes the finest fly fishing imaginable."

But he can't choose favorites.

"In the months to come," he explains, "I have to take care of all of 'em—trout, bass, perch, sunfish, minnows, and all the rest. We're all set to go."





Allentown Call Photo.

A 14-pound carp, one of the largest ever caught in the Jordan Creek, was landed by John Sahnton, Allentown, while fishing at Helfrich's Spring. The fish, which measured 27 inches, gave Sahnton, a veteran fisherman, a stiff battle.

TAKE DAD ALONG FISHING

(Contributed)

For quite some time, the angling editors of our out-door publications have been urging fishermen fathers to take their sons along. Perhaps it has not occurred to them that the boy is often responsible for the presence of his father on the stream. I know whereof I speak, because after considerable argumentation, I succeeded in convincing my dad to give fishing a trial. He was not a novice, because his boyhood days were spent in the country. Anyone who has lived in such an environment knows that fishing is one of the major summer pastimes. He knew his fish too, because he had one of the finest bass streams of that time at his disposal, the Delaware River. Not only did it yield some fine bass, but it also was alive with shad, yellow perch, and in his estimation the finest fish of them all the white perch. He was not lacking in tutelage either. "Doodles" Rietsell, one of the best fishermen on the river, taught him considerable about the habits of Pisces.

It was a difficult task, convincing him that trout fishing was more than standing waist-deep in some stream swishing a stick that would not make a good switch and trying to lure some old trout to strike at a bunch of feathers.

"You boys don't know what fishing is," he said. "In my day, we had an eighteen foot bamboo pole and a piece of string the same length and we tied our hook directly to it. We did not know what a leader was and tapered lines were unheard of. Flies? Shucks, if you catch anything on them feathers it will be pure luck."

"Well, dad, I'll forgive you for belittling our outfits because you are getting old and you can't stand the strain of wading any more. I bet you would not be able to hold one of these light rods all day anymore." This was a bit of strategy designed to get him mad enough to give trout fishing a try.

"Why you . . . you young pup, I can stand more punishment now than you ever could. I'll show you who is getting old. I am getting you up early tomorrow and we'll fish the meadow run. If I don't get more fish than you do, I'll shoot myself. What's more, I'll use them things you call flies and beat you at your own game. Goodnight." And he strode from the room.

It seems like I had hardly got to sleep before he shook me and made me get up. After a hasty breakfast, consisting of bacon and eggs and coffee, we walked to the stream. The air was chill and the grass was coated with frost. The sun was not up yet and the cool moist air made me shiver slightly. It numbed the hands and made it hard to run the line through the guides. I showed Dad how to string up his rod and attach the leader and fly. I illustrated the principles of fly casting to him and placed a fishing license in his hand. I had gone into town, to the sporting goods store to procure it for him, and I had to get the storekeeper out of bed to get it. It surprised me to see Dad quickly master the fundamental casting technic. After a bit we were ready to start fishing.

I had just slipped into the stream, when I noticed the pale glow in the east that denoted the break of day. I paused to watch the spectacle with awe. It is funny that no matter how many times you witness the sunrise, you will gaze at it each time as if it were the first you ever saw. The sun cast its rays across the open meadow and transformed the frost on the grass into a myriad of sparkling, shimmering priceless gems. The birds too seemed to become living things once more. Their cheery notes each blending to make the transformation complete. It seems that you are transported from the silence of the dead into the glorious world of the living. There are many people who have never witnessed this beautiful transfiguration, and I pity them. The stream also added to the beauty of the scene. Winding its way lazily over the meadow, it seemed to denote a peace and serenity that most people have forgot existed.

Once more I started casting, after a few false casts I let the line shoot out upon the water. The fly landed lightly and traveled about two feet when I had a smashing strike. I struck and hooked the fish and he shot out of the water in a spray of water. Finding that to no avail, he turned and headed for the log from which he had struck. I tried to turn him but he had other ideas and he succeeded in breaking the leader by snagging it. You anglers have all had that experience at one time or another and you know the sensation it creates in your body. I turned to talk to Dad and discovered that he

was not there. He did not say that he was going, and I sensed that he was up to something. Presently, another angler appeared and I hailed him with the usual greeting when two fishermen meet.

"What luck?" I asked.

"Not much, I've got two small brooks. These fish sure are foxy. I let them break three leaders on me. How are you making out?" He queried.

"Just lost one via the broken leader. Say did you see an elderly man fishing below here?"

"If you mean that tall fellow fishing the Silver Doctor, I just saw him by the willow tree. He was just sitting under the tree dangling the fly in the water." He replied.

"Thanks for the information and tight lines to you," I said.

I crept stealthily toward the tree, and I could see him lifting the rod from time to time. Presently he hooked one and horsed it ashore. I strode up to him to view the catch and it proved to be a well-girthed rainbow a foot long.

"I told you you were getting old," I chided. "Who ever heard fishing for trout that way?"

"Son did you ever read The Compleat Angler by Izaak Walton? There is a piece of poetry in that book that approves of this type of fishing. It goes something like this.

"Of recreation there is none  
So free as fishing is alone,  
All other pastimes do no less  
Than mind and body both possess,  
My hand alone my work can do  
So I can fish and study too."

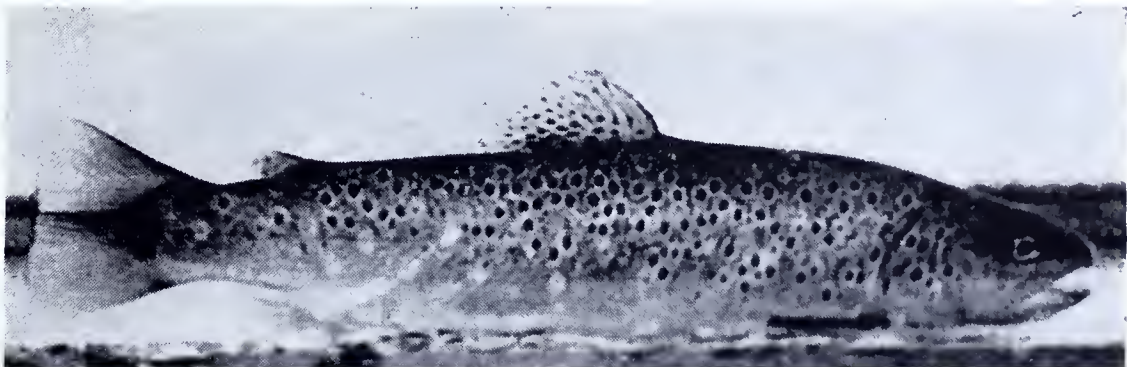
"Hurrying from place to place don't get you anywhere. If you want to succeed in catching fish you must have patience. I learned long ago that in being patient you get results.

"That's the trouble with most fellows today, they do not know the meaning of the word patience. Until they learn that they will not be of much use to anyone. Fishing teaches you patience, and while you wait for the fish to bite, you can straighten out a lot of complex problems. That is why I fish in this manner."

"Dad, I have never looked at it that way before, but I know you are right about it. Do you think you could teach me?" I asked.

"I suppose I could, but it would take quite some time. You are young and being young makes you impetuous. It'll take a lot of fishing to convert you, but it can be done."

So it seems that he took me fishing when I thought I was taking him. That fishing trip changed my mind about a lot of things, and it gave me the swellest fishing partner a fellow could have. His Dad.



A nicely marked brown trout.





This catch of North Tier brook trout was scored on Trout Run, Potter county, by F. B. Deiter and H. H. Hoffman of Stroudsburg.

## ANGLER REVIEWS 1938 SEASON

Just a few words following the close of the 1938 fishing season, writes Robert E. Gambol, of Media. My wife and I fished a bit down this way (Ridley and White Clay Creeks). Last year we were not able to stray very far away from home due to the arrival of another little fisherman in our family.

We think that trout fishing in 1938 was of the best early in the season or until the middle of May. Heavy rains during the first part of June and then again in July messed up the fishing somewhat. It also changed a lot of pools, formed others and on the whole changed the stream bed quite a bit. I went out several times after the rains and found fish in holes that would have died if someone had not put them back.

We caught 61 trout on Ridley Creek the first two days of the season, keeping 12 that were all better than 9 inches in length. Many of these were caught at the base of a dam and released on the other side with the hope that they might furnish sport at some future date. Believe it or not, I fished above the dam five times thereafter and caught only two trout.

Most of the fish were in fine condition but a few had fungus markings on the head.

White Clay Creek produced the largest fish for us. Three which I caught and one taken by the wife being over 12 inches in length. The lower sections of this creek offer some good possibilities if one will go down through the woods and fish the deep holes. It is not easy going, I can tell you.

Bass fishing was terrible down this way. Plenty of little ones, a few really good days and very few big fish. Plenty of minnows in some creeks, none in others, and too much muddy water. One of the finest sights I ever saw occurred last year after the big rains of July when we watched the carp spawning in Crum Creek. There were thousands of these yellow bellied fish going in schools through the

grass. Two that I know of were caught, each weighing better than 20 pounds.

We spent our vacation at Promise Land Park in Pike County, and fished about 10 different lakes for pickerel and walleyed pike. Plenty of pickerel, but most of them were from 12 to 15 inches in length.

I am glad to see that the Board cut the limit on bass from 10 to 9 inches again and reduced the number of fish bait that could be taken. Tried hard to show fellow fishermen how to take the hook out or cut the hook off in under-size bass. After all, who wants to eat a small bass when one around 14 or 15 inches is so much better.

One thing I want to say in closing. I use worms for trout more than any other bait but I also use barbless hooks. You can have heaps more fun and you can't "hoss" them in.

## CENTRE CLUBS DISCUSS PROJECT AT SPRING CREEK

With about 75 members of clubs in eight different sections of the county present, the Centre County Federation of Sportsmen's Clubs held another of a series of district meetings at Howard. Prior to the meeting in the Howard high school building the sportsmen enjoyed a chicken and noodle dinner served at the Methodist church there by the women of that church.

Harry Weber, of Philipsburg, a member of the Fish Commission, told the sportsmen that the Commission has plenty of trout to distribute to all sections of the state. He said, in answer to the usual criticism the board gets for not stocking before spring, that the commission had planned a stocking program for last fall but that the streams were not in good condition to harbor trout then because of low water which resulted in a lack of food.

A discussion arose over the crowded condition on Spring Creek during the trout season since the Fisherman's Paradise was first opened in 1935. It was suggested that in order to alleviate that condition other similar projects should be started in other sections of the state. Commissioner Weber said he doubted whether another "Paradise" could be constructed by the Fish Commission in the near future because of the great expense connected with a project of that type unless it could be established in connection with a state hatchery. Spring Creek at present seems to be the main attraction for fishermen throughout the state because it has received such wide advertisement through the "Paradise."

## POTTER COUNTY CATCH

One of the nicest creel limits of trout taken in this county during the 1938 trout season, writes Warden Kenneth Alley, of Galeton, Potter county, was that caught by Vern Osgood, of Galeton. Vern's catch consisted of 10 rainbow trout that ranged from 12 to 16 inches in length and had a combined weight of 7 pounds.



Photo by Warden Carl Bidelspacher.  
An unusual mount of a mink with a brown trout by J. Aug Beck of Williamsport.



## CENTRE SPORTSMEN HOLD ANNUAL DINNER

The annual dinner of the State Centre, Game, Fish and Forestry Association, held in the American Legion Home at Philipsburg proved to be one of the most inspirational ever held by the association. Seventy members of the association and their guests were present.

Following the dinner, served by the Ladies Auxiliary of the American Legion, guests of the evening were introduced by the president, Russel Lucas. These were Harry Weber, member of the Fish Commission; M. E. Woodward, Game Protector of Bellefonte; Herman Howland, Game Protector of Snow Shoe; S. B. Reed, Game Protector of Pine Grove mills; Dave Dahlgren, local Fish warden; Elmer J. Turner, local Game Protector and Elmer Pilling, Game Protector of the Glass City Refuge.

Mr. Weber spoke briefly on the activities of the commission, and urged all sportsmen present to cooperate with members of the commission in promoting better understanding between the various groups in the State, and bringing back the streams to a condition where more fish may be stocked and maintained. He reported that great numbers of fish are now available for stocking and should be placed in the streams, but cannot be placed till the opening of the season due to the scarcity of food caused by low water.

This talk was followed by that of Mr. Sherman, Game Supervisor of an eight county district, located at St. Mary's. Living up to his reputation as the best speaker in his field in the State, he presented an outstanding inspirational talk to the group.

Following Mr. Sherman's talk the committees for the year were announced. Standing committees for the year were:

Fish committee—Chairman Ed. Loding, Wm. Fenton, Charles Hartle, Charles Rumberger, James Brooks, Joseph Kephart, Ed. Miller, Alfred Jones, Charles Eboch, Sr., Ed. Smith.

Membership committee—W. C. Kephart, chairman; Eldon Woodside, Fred Mattern, Clifford Drury, Fred Kenjora, Jones Hess, C. A. Swanson, Stanley Johnston, George Griest, Ed. Miller.



Scene at the opening of the Union Terrace fishing pool for children at Allentown last year.

Youth Education committee—William Townsend, chairman; W. F. Weber, Elmer Pillings, F. E. Ehredfeld, Ed. Hewitt, George Tay, LeRoy Hellewell.

Forestry committee—John Beals, chairman; Dave Dahlgren, John Nixon, Jacob Hurwitz, Elmer Turner, Joseph Johnson, George Griest, Jr.

Conservation committee—Barrett Merrill, chairman; H. E. Weber, Calvin Orwig, Jr., John Beals, Elmer Pillings, Greyson Selby, William Supina, William Nixon, Robert Johnston.

Publicity committee—Maynard Henry, chairman; William McFeeters, Barrett Merrill, George Sheldon, Edward Hewitt.

Skeet Field committee—Ed. Loding, chairman; Charles Hartle, Dave Dahlgren, John

Beals, James Reiter, C. F. Kephart, Claude Gette, Jr., Charles Rumberger, J. F. Kephart, Axel Swanson, Dean Allison, Web Jacobson.

Game committee—Dean Allison and Dr. Claude Gette, Jr., co-chairmen; Clyde Arbogast, Forrest Rapsey, Charles Rumberger, J. F. Kephart, Les Pryde, William Townsend, Charles Johns.

Legislative committee—Charles Rumberger, chairman, and T. C. Jackson.

A number of the activities of the association now under way were announced by the president. These include:

(1) Education of the young sportsmen—talks to be given by game protectors and fish and game wardens, promotion of the rifle clubs, and the assistance of the younger members in game distribution, game feeding, stream improvement and fish re-stocking. Each sportsman was urged to take a boy along on their hunting and fishing trips, and also invite them to attend meetings.

(2) Game distribution—138 rabbits have already been ordered for restocking, with the possibility of turkeys also being stocked before the close of the season.

(3) Co-operation with game and fish wardens, and attempt to report all violations of the sportsman's code.

(4) Other activities also developed will be those of dog shows, skeet shooting, field trials, rifle matches.

Parson Brown had concluded his sermon and was making the announcements for next week.

"And now, my bred'ren," he said, "next Sunday I will speak to you upon the condition of the church and my topic will be 'The Status Quo.'"

"Pardon me, Parson," interrupted Deacon Jones, "but what do that mean?"

"Well, Deacon," rejoined the parson, "dat's Latin for we's in a h--- of a fix."



Sloping stone dam and boulder retard as placed in the Little Lehigh, Lehigh County.



## A FIRST DAY THRILL

It was April 15th, the first day of the 1938 trout season in Pennsylvania. The three of us arrived at the stream just as the silvery moonlit shadows blended into the gray shades of approaching dawn. Our tackle hurriedly assembled, we scrambled down the steep embankment to the stream, full of early season enthusiasm augmented with a hope of catching one of the 'old timers' we were sure the stream contained.

As a lure I selected a live minnow carefully threaded on a leader loop and held in place with a double hook. I had fished for about a half hour with no success when finally a nine inch Brown decided to have breakfast on the minnow I offered; to his disappointment he landed in my creel. Casting into every part of the stream as I moved along I came to a deep blue pool at the foot of a small waterfall. My first cast into the pool brought no result, but the second was the inauguration of my supreme thrill of the day. As my line and minnow drifted with the swift current through the center of the pool it suddenly stopped, I tightened the line thinking it might be fast on a submerged log, but as the line became taught it began to move across the pool toward an overhanging ledge of rock. Thinking I had another trout about the size of the one I had just caught, I decided to "heave" him out on an adjacent sand bar. Such a foolish move really put that trout into action and before I could release any line my rod, being bent double, was drawn for half its length into the water. I maneuvered him across the pool into a position where I could get a good look at him, and would estimate his length to be at least twenty inches. Holding him at bay for a short while as he charged back and forth across the pool, I tried to bring him close enough to slip my net under him, but with no success. Finally Mr. Trout decided to try his luck on a long flat riffle below the pool. Feeding him line as he dashed madly down the stream I stumbled after him, as I knew he would never come back into the pool. He seemed to be almost played out as I held him steady with a taut line while I tried to get on the downstream side, but with a last final effort in a desperate attempt to escape, he churned the water madly, leaped clear of the water and shook his head with determination, and then—VICTORY—for the trout, as in his last attempt, after several minutes of ferocious battling, he seemed to unfasten the double hook from the leader loop.

My hat is off to that big boy for his gallant fight and victory. Even though bringing him home would have been an added thrill, I'm glad he's still there to thrill some other angler's heart and perhaps mine, as I'm going back to the same pool to challenge him again.

—RALPH E. BARNETT.



C. H. Lohry, Lemoyne, with his catch of 10 suckers, 13½ to 17¾ inches, scored on January 20 in the Yellow Breeches Creek. These suckers, caught in two hours, had a combined weight of 19 pounds, 4 ounces.

## STREAMS IMPROVED

Under the direction of Homer H. Smith, forest ranger, CCC workers from Darling Run camp improved Asaph and Straight Runs, making them fine trout streams, writes Warden Leland Cloos, of Middlebury Center, Tioga county.

In Asaph Run, 52 stone dams, 38 log dams, 45 stone deflectors and eight log deflectors were constructed. Improvement work in Straight Run consisted of 20 log dams and two stone dams. A good many retards and plenty of brush for cover were placed in these streams.

## PERFECTION IN TROUT

While reading the ANGLER, I was reminded of an experience that occurred while on a little trouting trip up Swift Run in Snyder county, writes G. Earl Shoop, of Shamokin.

I had attempted a cast in a small pool while going up the stream and had had no success. However, on the way downstream, I made another cast into this pool and caught an eight inch hemlock trout (brook trout). To me these trout are as pretty as one gets anywhere. Then, as dusk was falling, I cast into a larger pool and out came a trout, one of the most beautiful fish I have ever caught. It had a dark back and the belly was golden to pink as were the lower fins. I have caught many trout but I just looked at this one and thought its remarkable beauty and spots were wonderful. God made some grand fish but to me this was one of His best creations.

But the main reason in writing this concerns the trout I first mentioned. It was somewhere around two hours after I caught it that I cleaned it. When I removed the stomach, I came upon a good sized lizard and lo and behold, the lizard was still alive. When I put it back in the water, the lizard swam away. Don't you think this was unusual, that the lizard could be in the stomach of a fish for at least two hours and still live? Likewise, the worm on which the trout was taken was still wriggling.

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## FROM "ANONOMUS"

DEAR MISTER EDITER:

This time I am writin on the typewriter so I kin spell so much better and quicker. I seen in a sportin magazine where fish and game all has such a sense of humer but I didnt pay it no heed till yistiday but yistiday I wos alaying up in the brush in lilys bottom (i mean mr. lilys Bottom where Shovers run Runs through it) and 2 fellers cum along an I knowed right away that one of them must have saw me where I was layin becose when he stepped acrost me to throw in his bait he sed Lookout.

I was a layen there with a bran new streemer just like that there charley Foxes waiting for old Inspector to cum and look at it. Old Inspector is a fair size trout that looks at the flys and things people tells about and there pictures in the ANGLER. I make one just like the pictures and if he takes a look at it, it is purty near a cinch that another fish would bite on it and I will ketch him. It saves me lots of time trying it on the other fish becose Old Inspector, I call him that, he is always right there and ready to oblige. Well, this here feller stepped acrost me and said lookout and throwed in. He said is there any fish in here and I said there wosent none above the bridge becose they dont never stock it and he says if there aint no fish in here why is them 2 cow paths on both sides of the crick. He says they seen a big fish cummin up this side of the bridge and I sed why didnt you ketch him and he sed he wouldnt bite but they tried him. He sed he cougth one yistiday in the cumberland Dam 22 inches and one haff long and I forgit how big around and I sed that must have been one of them old woreout goverment hatchery Rainbows what they dump there evry Spring and and he sed it couldent of been one of them becose they had et him and it tasted O. K. He sed they had been on the go ever since they left jonstown night before last and he wisht this here crick hadent been fished so much sos

they could of took them a mess of fish home with them.

The other feller he says they ort to have stocked this part of the crick to and then kep everybody out for a whole year after they stock it. He sed they ot to keep everbody out of every crick for a whole year and then they wuldent taste like liver. He says what kind of a fish was it they see comin up this side of the bridge, his belly was all yello. I sed like enough was a sunfish and he sed, O, he sed, he was mabe a foot long and I says yes they get big like that in this crick if the sucker fishers don't get them before the trout season opens and the other feller that stepped acrost me and sed LookOut he sed, honestly isent there enny trout in this crick up in here and I sed honestly I didnt know of but just one trout above the bridge and he lives about 3 hundred yds above here by a big old log and I seen him at daylite this mornin and he didnt bit. So they both tuk down there rods and they sed they gesed they would go back to Jonstown and by crackey if old Inspector didnt cum up that very minit and we all seen him and I says Migosh, i says, lookit that. I cant just sense all of them picktures of flyes and things in the ANGLER but wus there ever anny what looked like a big old green leaf becos it wus just a big old green leaf that old Inspector had rose to look at and the next time I go fishin I will try one for bait if you dont tell me there aint been no pickture that looked like one in the ANGLER and mabee old Inspector was just kid-den them 2 Jonstown fellers after what I was just tellen them bout there not bein no fish above the bridge. What do you think? Anyhow they both put there rods together again awful quick and throwed there baits together right where Old Inspector laid on the bottom and we could all see him layin there and he never moved.

They was both usen worms. Big nite-crawllers.

Yewrs Truely,

ANONOMUS.



Photo by Joe Licini of Allentown.

Some fished, others snoozed on the Little Lehigh opening day of last trout season.

## CLINTON OBSERVES GOLDEN ANNIVERSARY

More than 475 sportsmen jammed the Masonic Temple in Lock Haven ballroom to attend the 15th annual banquet of the Clinton County Fish & Game Association, which is rapidly approaching its golden anniversary, and to hear John B. Thompson, the "Ozark Ripley" of hunting and fishing fame, speak.

After serving six presidential terms laden with success, Frank F. Marshall announced his retirement from office.

A turkey dinner was speedily and efficiently served by the Masonic banquet corps. The Temple Ensemble, augmented to the number of 22 for the occasion and under the direction of Kenneth W. Hassinger played during the banquet.

Mr. Marshall opened the after-dinner program saying that the association was organized in 1894, 45 years ago. He pointed out that it had grown considerably and that there were now three such organizations in Clinton County including the Western Clinton Sportsmen's Association and the Southern Clinton County group. He said the combined membership was 1,000 or about one-third of all licensed sportsmen. He introduced Calvin W. Bathurst as master of ceremonies.

Mr. Bathurst called for a rising vote of thanks for Mr. Marshall for his service as president. He then introduced for short speeches: John C. Youngman, Williamsport, president of the Pennsylvania Federation of Sportsmen; Merrill C. Merritts, Altoona, vice president; H. M. B. Weicksel, Renovo, president of the Western Clinton Association, and Rep. Charles E. Donahue.

## ANXIOUS PICKEREL

Carl Biesecker, of Scranton, submits the following "believe it or not."

While fishing at LaBar's Landing, on Lake Wallenpaupack, I was pulling in a 14½ inch pickerel. I had two hooks on my line and as I was lifting the 14½ inch pickerel into the boat, another 13 inch pickerel jumped at the other hook. I reached out and touched the 13 inch pickerel with my left hand.

## FISHING IMPROVED

Most of the trout I caught during the 1938 season, writes Joe Glachen, of South Fork, were taken from Bobs Creek, in Bedford county, and the Ebensburg water dam in Cambria county. Last year was a revelation to me in how a stream could be improved for fishing. Heretofore, Bobs Creek had a poor reputation in this section as few trout were caught from it after the first week or two. I know of quite a few nice catches having been taken right up through May and June last year. The dam also produced some great fishing and increased the use of artificial lures many times over in this section. Both places are fished very hard. After the season is open a few weeks, the smaller trout streams in this section are pretty well cleaned out.

Between the two places mentioned and the Wilmore Dam near here with its crappie fishing, our sport has improved many times over.





## HERE AND THERE IN ANGLERDOM



Have had more sucker fishing in this section than usual, writes Warden R. C. Bailey, of Youngsville, Warren county. Our streams have been open most all winter. Conewango Creek in the vicinity of North Warren has been a favorite spot. The largest sucker reported at this location was taken by Blair Thompson, of North Warren. It weighed 4 pounds 12 ounces. The Allegheny River also furnished some good sucker fishing at the mouth of Brown Run just above Warren and in the vicinity of Tidioute and West Hickory.

Spring is only a few days off and with it comes our task of planting about one and one-half million trees, writes C. E. Spinney, acting forest supervisor for the U. S. Department of Agriculture, at Warren. The planting season is short and with fewer CCC enrollees to draw upon our days are apt to be busy ones. I have arranged to have CCC men meet the consignments of fish scheduled for this section during the week of March 5 to 11. We will be able to give you full assistance up to the first of April. Assistance after April 1 will depend upon the weather or the retention of existing CCC camps. You may be assured that we will cooperate to the limit of our available man power.

Writes Board Member Fred McKean, of New Kensington: Save the crab. When you are fishing and you accidentally catch a crayfish, don't trample it in the mud. Just return it to the water unharmed. It will make a meal for a bass and maybe some day this same fish will make a swell dinner for you. By conserving our fish food we can help save our fish.

From Warden Harry Z. Cole, of Norristown, comes word that sucker fishing is on full swing on the Delaware River. On Saturday, March 4, I checked better than 60 fishermen between New Hope and Durham. There were many catches of from four to fifteen nice suckers, some 18 and 20 inches in length. Then there were some who really did not know how to sucker fish and of course, they were disappointed. While I was checking the fishermen at one point, Elmer Fluck, of Erwinna, pulled out two, which made his 88th and 89th suckers caught during the past three weeks.

A nightcrawler accounted for the 21 inch, 2 pounds 13 ounces brown trout taken last season in Flory's dam at Bangor, by Francis Doll, of Bangor.

Word has been received that Colin McFarland Reed, a director in the Pennsylvania Federation of Sportsmen's Clubs and president of the Southwestern Division of the Federation, has been signally honored by having been elected vice president of the National Wildlife Federation. Mr. Reed's home is in Washington (Pa.).

A water worm, larva of the crane fly, lured a fine 17½ inch brown trout to the strike for Francis Pretko, of Allentown, one day last season. The fish was taken on the Little Lehigh.

We have been receiving quite a few inquiries on how to reach Brokenstraw Creek in Warren county, one of the largest trout streams in northwestern Pennsylvania. The following data concerning this stream has been furnished by Warden R. C. Bailey, of Youngsville. Brokenstraw Creek provides some of the best trout and bass fishing in this section of the state. Bass are plentiful over the entire range of the stream as are large rainbow and brown trout. However, you will find the best trout fishing from Garland upstream to Spring Creek. To reach this point from Pleasantville, follow Route 27 to Garland and turn left in Garland. Drive upstream about 4 miles. The road parallels the stream and you will find good fishing along this section of the stream.

Good news for trout fishermen planning to fish North Tier waters early in the trout season comes from Warden Kenneth Aley, of Galeton, Potter county. From all indications, he writes, spring is here or just around the corner. First the ice goes out, then come the early sucker fisherman and last but not least arrives that harbinger of spring, the robin. The ice went out on February 1, and on the second of February the sucker fisherman could be observed seated along the stream, patience personified, with his cane poles. The first robin put in an appearance one week later. Some nice catches of suckers are being taken from Big Pine Creek. Gerald Slocum was one of the first to make a nice catch. Kenneth Walter and Robert Fender also made some nice catches.

Tony Lupia, of Harrisburg, is hoping to duplicate the catch of trout he made last season on Easter Sunday in the Yellow Breeches Creek. Topping the catch was a 15½ inch trout weighing one pound 6 ounces, and the other 6 trout in his creel ranged in length from 8 to 11 inches.

Five suckers, ranging in length from 14 to 18 inches and having a combined weight of 8 pounds were taken by Robert Gier recently while fishing the Sweet Arrow Lake, Schuylkill county, according to Warden Anthony Lech.



George Tepper, Media, scored with this 25 inch, 5 pound brown trout in Valley Creek at Valley Forge last season. He sets a personal 10 inch size limit on the trout he takes.



## *Anglerette Astream*



Mrs. Floyd C. (Marian) Baker of Scranton will no doubt re-enact this scene on April 15th, opening day of the trout season this year. Writes Leon E. Decker, secretary of Camp No. 63, United Sportsmen of Pennsylvania, who submitted the photo: "You probably know that Marian is our most popular anglerette."

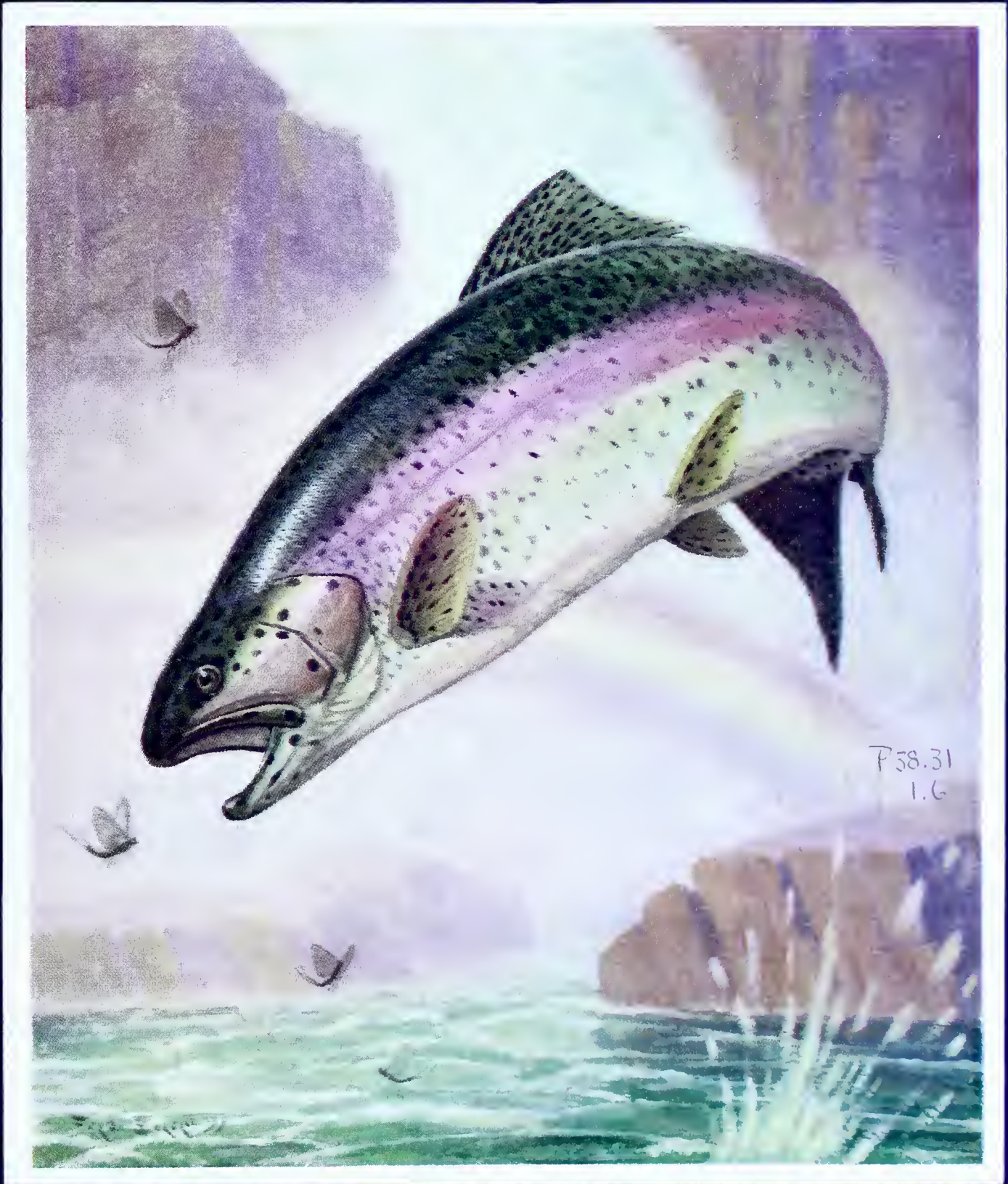


## *Fish for the fun of fishing!*

A full creel is like a weight on the shoulder and the mind of the thinking angler; for if he thinks, he will know that he is taking more than his share, and in so doing is depleting the source of future sport for himself and brother anglers. Better one or two good fish in the creel with the rest carefully put back as an investment in future sport.



# PENNSYLVANIA ANGLER



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MAY 1939

TEN CENTS



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## EDITORIAL

### TROUT PRODUCTION MANAGEMENT

**T**HREMMATOLOGY is a term used to cover the principles and practices conceived in the improvement of domesticated animals and plants.

In recent years students have made great improvement in both animal and plant breeding. Fish Culturists have not stood idly by while other agencies engaged in animal husbandry have made noted advancements. The men who are responsible for growing the different fish crops for stocking Pennsylvania water areas are students of animal breeding who apply the practices and principles used by the agriculturists insofar as it can be applied to fish culture. Fish culture as compared to the many kinds of domestic animal breeding is yet in its infancy. Trout growing is possibly the oldest fish culture work in this country, and for this reason, has advanced to a greater extent in scientific management. Again it has advantage over other kinds of fish breeding, because trout can be grown under environmental conditions that can largely be controlled by the breeder.

The major accomplishments have been achieved in producing fish of rapid growth, improved coloration, and comparatively high in disease immunity, and have also increased the egg fertility with the exception of the rainbow trout. In this respect the method of selection of rainbow trout breeders has yielded a remarkable fish for Pennsylvania waters, but one very low in egg fertility. I am preparing an article at this time for the *ANGLER* covering our work with this fish, which has made such an important contribution to trout angling in this State.

Such factors as disease immunity and egg fertility have an economic bearing on production, but perhaps the most important in this respect is rapid growth. In the past few years the rate of growth of fish over a given period at all of the Board's hatcheries has been greatly increased. The most rapid growth takes place at the Huntsdale Hatchery, where practically the entire trout crop, without culling out the slow growers of the season's hatch, can be grown to legal size, or over, in twelve to fourteen months, and, where the most vigorous individuals are segregated, a growth of fifteen inches in twelve months is not uncommon.

The Bellefonte and Reynoldsdale Hatcheries are close competitors with the Huntsdale plant in this respect. The Corry station has the slowest growth rate of the four major trout plants; however, in the past two years, this has been materially increased. As an example, in former years few trout attained a size suitable to stock in public streams before they were twenty-two months old, and many were retained until they were thirty months old. This has been stepped up until approximately 50% of the crop is planted at the age of about twelve months, 25% at the age of fifteen to sixteen months, and the balance at about twenty-four months.

The careful selection of brood stock over a number of generations is, we believe, partly responsible for the increased rate of growth, but regardless of the blood strain if environmental conditions are not favorable, little can be expected. Through research the conditions under which the fish are grown are being constantly improved at the hatcheries. The water is exposed to the air to remove deleterious gases and increase the oxygen content; ponds are constructed so as to carry off waste matter and permit a rapid exchange of water; water temperature, that will permit a rapid food digestion and assimilation over the entire year, is given consideration; over-crowding in the pools is avoided, and care and judgment is exercised in feeding the fish. These factors have contributed largely to the increase of the growth of the trout.

Where fish are grown to the desired length in a short time, it cuts down the attendant's labor, and greatly increases plant production. Under the present method of operation, ponds formerly used to hold fish, until they were large enough to plant, can now be utilized for holding and growing the next season's crop. To illustrate, all of the fish hatched at the Huntsdale Hatchery during the winter of 1937 and 1938 are now planted in the streams of the State, leaving all ponds available for growing the trout hatched during the 1938-1939 period.

  
Commissioner of Fisheries



# WET FLIES

## BY CHAS M. WETZEL

IN THE early part of the trout fishing season, one seldom encounters large hatches of flies, and the few that are on the water ordinarily appear during the warmest part of the day. These early insects are usually not on in sufficient numbers to cause trout to rise at the surface—consequently if one wants to catch trout, the wet fly or nymph will prove the safest bet.

Later on, of course, we have a different picture. From the middle of May up to the end of June, the dry fly reigns supreme. This is the season when trout rise to the surface to catch the insects that hover over the water. Some of these flies are accidentally blown on the water by winds; others dip into the surface to lay their eggs; while still others—especially those that have just emerged from the nymphal cases—ride the waves a short distance since the organs of flight are not yet firmly developed. All in all, it is a grand display of surface feeding and unlike early spring, the main hatches of insects now occur in the evening.

Towards fall, trout through necessity stop their surface feeding, and concentrate on food on the stream bed. Naturally at this time there are many young and no doubt helpless nymphs that fall easy victims to the trout in its struggle for an existence. These serve to whet his appetite, and since no other food is available, we can presume that he concentrates on these creatures, and learns to ferret out even the most elusive and skillful.

Throughout the winter months, this continual hunt goes on, the trout rooting around and overturning stones and gravel in its quest for food. Nothing else being available, the fish must depend entirely on the stream for its existence. In short, it has to take what the stream provides, and though the situation may appear acute, yet it could be much worse off. For instance, while everything on land appears to be in a dormant condition, the stream bed is literally alive with crawling things. There are water worms, crustaceae, nymphs, mollusca, stick worms or caddis creepers, minnows and many others.

Then comes spring! The snow water is beginning to run off; angleworms are washed down with the first warm rains; nymphs start rising to the surface to transform into the winged fly, and the trout now takes an additional interest in the water some distance above the stream bed; in short, its foraging ground is again changing. This condition usually occurs at the beginning of the trout fishing season; and at this time the wet fly will prove the most successful, simply because it is presented to the trout in the locality where it expects to find food,—that is, somewhere below the surface of the water.

As I have mentioned, in the early part of the spring there are few flies emerging, and if

we neglect the caddis fly group, it appears quite likely that trout take the wet fly either as a free ranging nymph, or one about to ascend to the surface, there to break open the nymphal skin and emerge as a winged fly. As we know there are many of the caddis flies that descend beneath the water to lay their eggs,—a fact which should definitely squelch some of these would be authorities, who maintain that winged flies are never found underneath the surface. Their arguments are based—and rightly so—on the fact that a spent or dead fly will float; but the fact remains that these caddis flies are not dead—but are very much alive. No one will ever know how a wet fly appears to a trout—it is a matter of open conjecture—but regardless of whether they are taken as flies or nymphs (or fish worms, as my friend Kepner would have it) the fact remains, that in early spring they are most successful.

Frankly, I believe that they should be given more attention. It may well be that in our continual search for something new and extreme, we are letting many opportunities slip by, when we fail to use the wet fly that had served our anglers so well before us.

Until around the end of the nineteenth century, no other method of fishing was known. Then in England appeared Halford, the leader of the dry fly cult. Apparently no one could resist the fascination of the fly which floated so lightly and jauntily downstream. Everyone took it up. Around 1918, a dry fly wave swept this country and the majority of us were engulfed by it. Less and less was heard of the wet fly, until G. E. M. Skues, another Englishman, brought it again before the public in the form of nymphs.

Now, nymph fishing and wet fly fishing are very much alike. Both are presented to the trout under the surface of the water. With the exception of the wings, the artificials are quite similar—in fact, I have taken many trout on wet flies that had the wings cut off close to the body. The method of fishing differed somewhat, mainly because we were passing through an experimental stage, actuated and swept along by the enthusiastic response that met this new type of angling. But is it new? Sometime watch an old veteran wet fly fisherman, and you will see that he is not always retrieving his flies in a series of short jerks. Half the time they are floating naturally with the current, and, if questioned, he might tell you that he used that method since boyhood days and that it usually proved as successful as the jerky retrieve. As I see it, the same methods used in nymph fishing, work equally as well with the wet fly. This may seem a rather broad statement, but, if any doubts exist in your mind, put the matter to a practical test this season and be convinced.

It is impossible to say which wet flies will

prove best but a good rule to go by is to match the fly on the water. Be provided with an assortment of various sober shades and colors and keep changing them until you have located the fly which the trout prefer.

The following wet flies are usually found in my fly book throughout the season. Some are imitations of insects on the water, others are purely fancy creations, but all of them will take trout. I have included the dressings, for the benefit of those who tie their own flies.

### No. 1 Red Quill

The Red Quill is patterned after *Iron pleuralis*, one of the earliest mayflies to appear over the water. It is a typical cold water insect and is in season from the middle of April until the first week of May, but may sometimes be noticed a little later depending on the weather.

Body, peacock quill; hackle, dark red brown; tail, dark brown feather fibres; wings, starling.

### No. 2 Professor

This old favorite was named after Professor John Wilson, better known among the old time anglers as Christopher North.

Body, yellow floss silk, ribbed with gold tinsel; hackle, red brown, tail, scarlet fibres; wings, mottled mallard.

### No. 3 Red Legged March Fly

This fly is patterned after *Bibio femoratus*, an insect that appears along slow moving streams, around the latter part of April.

Body, peacock herl; hackle, red furnace, or cochybondlu; wings, coot.

### No. 4 Grey Hackle

This fly is a favorite with many anglers, especially the Grey Hackle with yellow body.

Body, yellow wood ribbed with gold tinsel; hackle, grey or grizzly; tail, scarlet fibres.

### No. 5 Greenwells Glory

This fly was named after Canon William Greenwell, and is known the world over as a most successful fly.

Body, olive brown floss silk, ribbed with gold wire; hackle, furnace; wings, dark starling or blackbird.

### No. 6 Coachman

This fly was named many years ago in honor of Tom Bosworth, royal coachman for Her Majesty, Queen Victoria.

Body, peacock herl; hackle, red brown; wings, white duck.

(Turn to Page 22)





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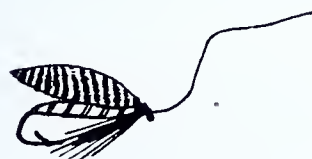
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# TAKING TROUT ON NYMPHS

## A Few Hints on Using Nymphs Effectively

R. W. McCAFFERTY

**I**T WOULD probably be a wise move to begin this article with a confession or statement to protect myself. In writing this I make no pretense at being an expert at nymph fishing, rather I am just an ardent exponent of this type of angling for trout. I have seen anglers who are very proficient at nymph fishing and know of men who are considered experts. A personal friend, to be the successful angler he is, must be an expert.

To completely master nymph fishing is not the easiest task in trout angling but I consider it one of the most productive methods. And it should be. Nymphs, or water insects of one form or another, make up the bulk of trout feed. Rare indeed has been the trout stomach I have examined which did not contain at least several nymphal forms. Their excellent food value and the fact that they are ever present makes their imitations the logical contenders for first place of all imitation trout lures or flies.

To use nymphs successfully one should have at least a fair knowledge of aquatic insects unless of course, one wishes to go along aimlessly wasting much time changing from one lure to another. By this statement I do not wish to imply that with a knowledge of insects one will know when and just what pattern he should use. Angling is not that easy and we can be happy that it isn't. However, insect study is both interesting and profitable to the angler as in the process of studying, one inadvertently studies the fish habits also. It is then that the angler notices how often he has mistaken a rise to a nymph as one to a floating fly. Fish often break the surface of the water in attempting to get a nymph, consequently a fish breaking water does not necessarily mean it will take floating flies.

In conversing with many anglers another erroneous belief is brought to our attention, that of nymphs being good only in early season or during periods of high water. It is true that at such times these insects are constantly being washed loose from their hiding places, but there are other factors to be remembered. At these periods there is much other food present in the stream and fishing nymphs at these times is not easily done, especially by the tyro. My best nymph fishing has not occurred at these periods probably because of my own incapacities. I cannot agree that these are the best times for using nymphs. Our dry fly fishing depends entirely upon the presence of nymphs. A hatch of flies denotes activity of nymphs and our best hatches of flies do not occur so much during early spring or periods of high water but rather during periods of stream normalcy. Why then this belief? I think it unreasonable.

The art of nymph fishing first seized me years ago when I confined most of my angling to brook trout streams. Nymph imitations were few and far between and it was an easy matter to select several patterns from a mail order catalogue. The streams I fished were small

and brushy and I thought my leaders quite long—six feet. Several attempts with the new flies were fruitless therefore they were soon forgotten. Lost in a corner of my fly box, they remained there for several seasons.

Then one June night I read an interesting nymph article. The author of the article stressed long, fine leaders, nine and twelve feet long tapered to 3X and 4X. He suggested also that the beginner try this fishing in water where he could study the reactions of the fish. The desire to use nymphs was again aroused within me and this time I procured more suitable leaders and newer type flies. The next task was to locate several good fish. That being accomplished I went to work. I tried the ordinary drift cast, dropping the fly upstream and letting it drift naturally over the fish without attracting any attention whatever. The next cast was dropped several feet further upstream and the fly allowed to sink and come to rest under the fish. After a moment I twitched the rod tip twice gently. The fly moved in two small jerks and was taken solidly. Four fish were hooked in this manner. In each instance the fly was made to rest shortly on the bottom near a fish before it was moved in short jerks. This was quite different from the first experience several seasons before and was very encouraging. Nevertheless it was not always so easy. Many times it was impossible to first locate the fish. The seed was planted, however, and I was determined to learn more.

In the following seasons I learned the value of method variation. The depth at which the lure was fished, the different actions, and the lack of freedom or any unnatural movement imparted to the fly by the angler were all forcibly impressed upon me. By first locating a fish, if possible, I saw how many fish I frightened by imparting movements to the fly. For some fish the fly had to be scurrying close to the stones on the stream bottom, others took it at mid-depths while often a nymph rising laboriously to the surface was most effective.

A deep pool in which I had always failed to take a trout, one morning afforded excellent nymph fishing and has since repeated several times. The center of the pool was very deep and dark, the bottom covered with large boulders, an ideal spot for nice fish. The current was slow and rarely did a fish break the surface. Using a 12 foot 4X leader, I tied on a wool bodied nymph and employed the system of my first experience, but without success. I was about to move on as my eye caught a glimpse of a fish roll about four feet under the surface.

To get the fly to the proper depth I greased about one half the leader. This left approximately six feet to sink readily. The next move was to cast sufficiently upstream to assure the fly sinking deeply. When the nymph neared the position of the fish the rod tip was lifted upward about a foot, slowly causing the fly to struggle upward. That turned the

trick and a brownie of about three fourth pound was netted in a few moments. This method, though requiring extra greasing of the leader, has been the undoing of quite a few fish in deep slow water. Leader greasing is a good method of regulating the depth at which the fly travels.

A consistently rising fish in a deep riffle gave me the next lesson. The time was mid-afternoon with a fair hatch of flies over the water. I felt certain the flies were dropping on the broken surface to drop eggs and the fish were feeding freely upon them. After trying dry flies in many patterns and sizes, I concluded that the proper pattern was not in my fly box. The lack of more dry flies prompted me to try a blue quill nymph. Imagine my surprise when I felt the fish as soon as the nymph touched the water. Several more fish were hooked or touched with the hook in this same riffle. All that was necessary was to drop the fly close to each rising fish.

Another fish in a deep glide wanted the fly rolling on the bottom. Here I was confronted with a strong current which frustrated all attempts to sink the fly. There was fully a five foot depth of strong current over this fish which lay in front of a large submerged rock. The entire tenfoot leader was rubbed thoroughly with mud to assure sinking and the line well greased. About 18 inches above the fly was placed a piece of lead fuse wire, enough to keep the fly down. To complete the sinking, the cast was dropped about 20 feet above the fish. The greased line floated well as I watched it where it connected with the leader. After several casts and two or three exciting stops caused by the fly snagging bottom momentarily, I saw the line make a decided movement against the current and upon striking, I was fast to the fish. This method is exciting inasmuch as well over 90 per cent of the stops you receive are false, the fly snagging bottom. Just the same, it is necessary to strike at each pause in the drift as you never know when you have a bonafide strike. It is not unusual to strike at the flash of the shadow of a bird flying overhead, or a flash of light on the water.

Not all fishing is done upstream. Standing about the center near or on the edge of a long slow pool, it is often productive to cast up toward the head of the pool. Allow the fly to drift naturally to the tail or outlet. At that point, providing you have not had a strike, begin a slow methodic retrieve, keeping the fly in the slower water near the edge of the current.

On large streams or those open enough to permit it, cross-stream casting is also a productive method. The system here is to cast across and slightly upstream. If you drop the fly on the far side of the current a large bow or arc will occur causing the fly to drag cross-stream. Vary this occasionally by jerking the fly easily on the drag. This is a very effective system for other under surface flies also and the majority of strikes occur when the fly reaches the zenith of the arc. The fish often





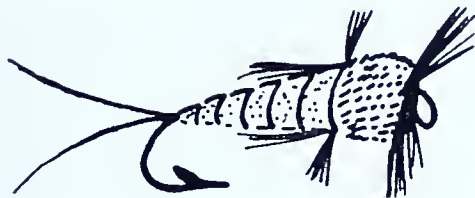
CREEPER



WOOL BODY



QUILL BODY



STONE FLY NYMPH



ANT

follow it till it reaches this turning point and in the majority of cases the strike is solid. By making streamside notes of these ex-

periences I have laid the foundation for better nymph fishing. Not all my attempts have been successful but through the use of proper equip-

ment and by persistence, this fascinating method is now one of my favorites. Why not add it to yours?

## TROUT OUT OF SEASON COST FISHERMAN \$235.

Mild days in early Spring arouse in many an ardent angler an urge to go trout fishing, an urge which he must keep in check until the arrival of April 15, when state law says that he may legally indulge in the sport.

Henry Bertin, 61, Collomsville R. D., felt this urge on March 23 and responded to it, with the result that he is now out \$235.05 in cash.

Bertin went fishing on the Williamsport Water Company's Mosquito Valley property. He found, as many a more prudent fishing enthusiast thought would be the case, that the fish were biting quite well.

In a few hours of fishing, Bertin got 17 brook trout—ranging from 4 to 10 inches in length, eight of them being of less than legal size.

Bertin's luck was limited to his fishing, however.

Leaving the stream, he encountered Allen Auchmuty, deputy game protector, one of four men who, under the leadership of Carl A. Bidelspacher, fish warden, had established watch over the area to check reports that pre-season trout fishing was being indulged in by persons who couldn't wait for April 15 to come around.

Taken before Alderman Charles E. Jackson for trial on charges preferred by Bidelspacher, Bertin pleaded guilty.

He was fined \$170 for the fish in his possession—at \$10 each. An additional fine of \$25 was imposed for fishing without a license. To this was added another \$25 for fishing on posted private streams on Sunday without the permission of the owner. Costs brought the total to \$235.05.

Bertin paid in cash.

## DISCUSS SUCKER FISHING IN BIG PINE

The regular meeting of the newly organized Pine Creek Sportsmen's Club was held at the Deer Trail Inn on April 3 with Game Wardens Leslie Wood and Hugh Baker; Fish Wardens, Leland Cloos, Middlebury and Kenneth Aley, Galeton, present as guests.

A representative from the Galeton club discussed the closing of Pine Creek to sucker fishing from November 30 to April 15.

Appointed to attend the annual meeting of the Confederation of the Consolidated Sportsmen of Tioga County to be held this month were C. W. Rexford and H. D. Austin, with Harold Proudy and John Gazdick named alternates.

It was explained at the meeting that 41 mature ringneck pheasants had been distributed in the Gaines region by the local game protectors.

## SCHOOL CASTING CLUB FORMED

The open meeting of the Fly and Bait Casting Club of the Dunmore Senior High School in the school gymnasium was a complete success with, by actual count, 250 sportsmen in attendance. A program on fishing and sportsmanship was presented.

Samuel Truscott, of Dalton, a member of the fish commission, was the principal speaker and his remarks were well received by the attendance. Moving pictures shown by Keith Harter, county fish warden, were enjoyed by the large gathering. Paul W. Gardner, president of United Sportsmen, Camp No. 63, in his talk emphasized the need of conservation if the youngsters of today are to enjoy any fishing when they reach man's estate.

Following the program Mr. Gardner met with the boys of the club and he invited them to become affiliated with the junior organization of the United Sportsmen, Camp No. 63. In a discussion between Mr. Gardner, Floyd C. Baker, treasurer of the Sportsmen's camp and members of the club, the aim of the club was set for stream improvement. Mr. Baker, through whose efforts the program was arranged, and Warden Harter offered their cooperation and guidance to the school club. Prof. James Gilligan, member of the faculty, is advisor to the organization.

## JUNIATA SPORTSMEN OBSERVE ANNIVERSARY

Almost 100 members of the Juniata County Sportsmen's Association celebrated the first anniversary of the founding of their organization at a banquet in the Millintown Fire Hall in March. A baked ham dinner was served by the fire company auxiliary.

Principal speaker of the evening was the editor of the ANGLER. A native of Lewistown, he is well known to local sportsmen, having hunted in Juniata County and fished in all of its streams.

Another speaker was Charles V. Long, of East Waterford, State Fish Warden in this district. Thad S. Jamison, of McAlisterville, vice president of the club, acted as toastmaster.

It was announced at the meeting that the association will establish a rifle range on the lands of Francis Cooper, secretary-treasurer of the organization near Spruce Hill. The members of the club met there on April 8 to prepare the range for high-power and small-bore rifle matches.



# THIS MODERN TROUT FISHING

## A Discussion of Factors Governing the Pennsylvania Angler's Sport

By ALEX P. SWEIGART

**T**O THOSE of our readers who fished one of Pennsylvania's major trout waters on opening day of the season, it is not necessary to call attention to the crowded condition on the stream. No better illustration of the rapid growth in popularity of the angling sport is needed. With the number of licensed anglers approaching 400,000 in Pennsylvania last year and present indications pointing to the presence of an equal or even larger number of fishermen on our state waters this year, it is necessary that we face hard facts concerning this grand recreational sport. It was estimated several years ago, even before the sharp rise in license sales, that if every licensed fisherman in the Commonwealth decided to take to the fishable streams on a certain day, there would be approximately 100 feet of stream available to each angler. Looking at it from another angle, and assuming that every fishing license holder had decided last year to fish for trout, there would have been available, roughly speaking about  $3\frac{1}{2}$  trout of legal size, stocked from the hatcheries during 1938, for each fisherman. While this estimate is obviously extreme, for not all and perhaps not more than half of our great army of fishermen angle for trout, it serves to illustrate the intensive demands now being placed upon the fish production program in Pennsylvania.

The problem, then, is one of "supply and demand", the supply primarily dependent at the present time, particularly in the instance of trout, on the hatchery production of legal size fish, and the demand hinging directly upon the number of fishermen taking to the streams. In the past, it has been pointed out that drought, flood and predators have strongly affected the carrying capacity of our trout waters, making spring stocking of legal trout the best insurance for good fishing in most streams. Usually on smaller streams, after



Opening day of the trout season on the Little Lehigh, Lehigh county.

the first two or three days at the opening of the season, the stock of hatchery fish is very much depleted, but the sport they afford during that period makes the trout season opening, April 15, a day red-lettered on the calendar of every ardent trout fisherman.

Another factor having its influence on trout fishing in Pennsylvania is the limited mileage of water suitable for holding trout within her borders. For their sport, the trout fishermen must congregate on these waters and over-fishing is almost certain to result.

How, then, may more favorable conditions as related to trout be brought about? We must recognize the vast benefits, both physical and mental, accruing to the public through this healthful outdoor sport. The recreational value of fishing to the people makes it desirable that not only those who at the present time enjoy it take to stream and lake but that others come to realize its benefits. We discussed last month the natural barriers to good trout fishing in many of our waters. Granted that under present conditions, the carrying capacity of trout streams may be brought to the highest possible standard from the angle of forage and suitable cover, we can do no more than hope that the underground water sources of our streams be restored through snowfall and rainfall to their capacity prior to the drought years. That still lets the problem of improved trout fishing for the angler in this year 1939 very much up in the air.

At various times, we have heard the following suggestions offered and present them for your consideration. First, reduction of the present daily creel limit from 10 to, say, 6 legal size trout a day and setting of a reasonable season limit. Second, shortening the trout season by lopping off the month of July, when it has been contended, fishing for bass and other warm water species occupies the attention of most fishermen and extremely low water prevails in many trout streams. Third, reducing the age limit for those required to take out a fishing license from 16 years, as prevails at the present time, to 14 years, thus bringing in to the Fish Fund additional revenue for increased production of fish at the hatcheries and improvement of environmental conditions for fish life in the public fishing waters.



An effective stream improvement device. Log and stone dam constructed on Swope Creek, Lehigh county.



Fourth, the closing of trout waters approved for stocking with legal size trout to all types of fishing except trout fishing during the regular open season for trout. While the writer is an ardent sucker fisherman, it is believed that this restriction would work little hardship on the sucker fishermen as a group. There are plenty of warm water streams and warm water tributaries to such streams, ideal sucker water, easily accessible to the sucker fishermen, and, with such a regulation in force, every angler would get an even break on the "red letter" trout day just as the small game hunter starts his sport in the cover with opening of the small game season. Fifth, the closing of trout nursery waters to all fishing during specific allotted periods. This plan has been tried out and proved satisfactory in several counties, Clinton, Tioga and Lycoming, by the Fish Commission which has been given splendid support by the organized sportsmen of the counties mentioned. Excellent fishing for trout, under special regulations, on Cedar Run, Slate Run and the Right Hand Branch of Young Woman's Creek, the streams effected, was enjoyed last season.

These suggestions directly affect the fishermen and as such require their united support if they are to be realized, in whole or in part. The licensed angler pays the bill and his desires must be taken, first of all, into consideration in any drive for betterment of his sport. He may also play a vital role in two important phases of environmental betterment for trout, stream improvement and predator control.

Notable work in stream improvement has been accomplished by a number of sportsmen's organizations during the past five years. Installation of carefully constructed current



**Deflectors and log boom.** This type of improvement has proved very practical on smaller streams in the lower tier of counties, according to R. S. Sullenberger of Lancaster.

deflectors, and, in some instances, waterjack dams, has been a feature of this program. Willow planting to provide additional shore cover and to serve as an aid in checking erosion has been another important phase in the program. Permanent stream improvement, even when carefully planned and executed, must be regarded as nothing more than an auxiliary to improving living conditions for trout. To expect immediate restoration of a depleted food supply through installation of improvement devices is obviously absurd. Over a period of

years, however, granted that the water levels in an improved stream remain fairly constant, properly located log and boulder deflectors and, in some instances, waterjack dams should prove distinct assets in development of additional forage and improving living conditions for trout. Well-anchored bundles of brush also may prove beneficial in increasing forage.

Without doubt, the watersnake ranks as the outstanding predator on fish life in Pennsylvania waters today. Its high rate of reproduction and its adeptness in taking trout and other fish, particularly during low water periods in July and August when it is most active, causes it to rate primary consideration in our intensively fished streams. That organized sportsmen are not only alert to this reptile's threat to their fishing but are taking active steps to combat it is borne out by the following splendid report submitted by the Huntingdon County Game, Fish and Forestry Association at the association's annual dinner on March 24. This survey of the 1938 watersnake campaign was presented by Bill Harlin, director of predator control for the Huntingdon association.

"It is generally conceded that watersnakes account for the destruction of a great number of our game and food fishes. With this in mind, we will attempt to prove the definite advantage that results from any campaign that removes these predators from our inland waterways.

"As a result of Control Campaigns conducted previous to this year, the Association has paid bounties on 1209 watersnakes at a total expense of \$60.65. Last year, the records show that the Association paid bounties on 1586 watersnakes at a total cost of \$79.30.

"For the purpose of this survey, let us assume that watersnakes are active five months out of a year. Let us assume further that, during this period of activity, each watersnake will kill one small fish every three days or fifty small fish each year. Assuming that one watersnake will kill fifty fish each year, the 1586

(Turn to Page 30)



The hatchery system, owned and operated by the fishermen through their license fund, is the keystone upon which the fish conservation drive in Pennsylvania is based. Shown is the main hatchery building at the Pleasant Mount hatchery, Wayne county.



# TROUTING TIPS AND TACTICS

By C. L. PETERS

THE important consideration in any type of fishing, whether it be fly, bait or plug is that the fish see in your offering some inducement to strike at or rather accept it as a part of their daily menu. It is just as necessary to use high pressure salesmanship to induce a wiley old trout to accept an artificial lure as it is for a bogus stock salesman to make a sale. Possibly if we were able to see with the eyes of a trout we could readily understand why trout disdain our every effort at times. The artificial must not only have at least some semblance of the natural food, but we must present it in a convincing manner. We can manipulate a wet fly or bucktail almost to suit our own fancy by twitching the rod tip slowly, or fast as the occasion might demand. Fishing across the currents will often bring results when casting directly up or down stream merits no reward. Water conditions must be taken into consideration and a fly used that can be readily seen by the fish. For late evening fly fishing or when the water is high or discolored try a rather large fly of a light color. Some top notch anglers invariably change to a size 12 fan wing royal coachman when dusk arrives. Windy weather will sometimes necessitate a change of tactics, as land insects are sometimes blown into the water and the trout greedily gather them up. I well remember an occasion when the

necessary inducement was a grasshopper, when all else had failed.

## Wet Flies

In selecting wet flies, one should have a fair knowledge of the insect life on the stream he expects to fish. There are a countless number of wet fly patterns as well as those in the nymphal stage offered for sale, but if you are anxious to interest the fish in your wares try to show them something on which they are accustomed to feeding. Several years ago I encountered a small boy digging in the mud along one of our prominent trout streams. I noticed as he diligently turned over the silt in his hands he frequently picked out the object of his search and deposited it in a minnow bucket. I ventured closer and finally asked what he was gathering. "Stick Worms," was the prompt reply, "did ya ever use 'em." "Well no," I admitted, "I don't think I ever heard of stick worms before." "Well, Mister," said the boy, "if you ain't never used stick worms, you ain't never fished much, or ain't never caught many fish." I looked the stick worms over and found them to be *Stenophylax scabripennis*, the pupa stage of the Caddis fly.

Many times since I have thought of that boy and his knowledge of the fact that trout prefer

their usual menu to a possible diet of unknown quality. In addition to the insects native to the stream beds, there are certain flies designed to attract trout by reason of their flash and lustrous appearance as they dart hither and fro through riffles and currents.

## Dry Flies

Dry fly selection is even more exacting. We are not only confronted by the duplication of the natural insect, whether that duplication be a true copy or impressionistic, but we must select flies that will wear well and function properly in response to the action imparted by the rod. In selecting flies always remember that any fly is only as good as the material used in its construction and THE HACKLE IS THE MOST IMPORTANT PART OF ANY DRY FLY. Hackle with any amount of flue along the center rib is absolutely useless for dry fly construction. These hackles have a tendency to become water soaked and with the added weight of the hook soon submerge. Stiff glossy hackles require careful selection on the part of the fly tier but are a credit to his workmanship as well as a boon to the angler using them. Good hackles will support a fly so as to make it float high and dry, not partly submerged, but resting on the hackle tips.

I much prefer to fish a fly of the palmer or bi-visible type providing the hackles are tied sparsely up to the thorax, and of good material.

Just a word as to the proper size fly to use. During early season when the water is usually very high, a rather large fly is necessary and I would suggest a size 12, and if conditions warrant it even a size 10 may be resorted to. However, the real finesse of fly fishing becomes more necessary later in the season when the water is considerably lower and smaller flies such as sizes 14 and 16 are favored more by the trout. I have some friends who are excellent fishermen who use the very small size 18 flies almost exclusive of all others during the latter part of the season. Then, too, with the change of fly size we must remember that for high and turbulent water when large flies are invariably used most any type of moderately heavy gut will serve for a leader, but when the water becomes low it is necessary to use finer, more delicate terminal tackle. Sometimes for the smaller sizes of flies, tippetts as fine as .006 seem necessary. Personally I would not advise using anything finer than .008 for the reason that .006 gut has only a two pound test rating. Tie it to your fly and have it wear on the eye of the fly for a few casts and it is very doubtful whether it would actually stand more than a one pound test. I have lost more flies in fish, on the strike, due to the use of two pound test gut than for any other reason.

I remember well an instance on Clark's Creek one evening when the trout were very selective. My son and I were fishing the same water, using size 18 flies and two pound test tippetts attached to the business end of our leaders. In the pool directly above our position we could see two trout rising steadily, one at the lip of the pool and the other further up where the fast water tapered off. Cautioning my son to sneak quietly within casting distance of the closer



"It is necessary to use high pressure salesmanship to induce a wiley old trout to accept an artificial lure."



fish, I detoured through the brush and crawled up to the creek on my stomach in order to approach without unnecessary disturbance. We both cast simultaneously and at almost the same instant the two trout struck and with the same mechanical precision two slack lines were retrieved sans flies. Needless to state after a hasty post-mortem we lost no time in changing to a more substantial mooring for our floaters.

### Minnows and Bucktails

Minnows and bucktail fishing provide many thrills when trout refuse to rise to the daintiest morsel on the surface of the water. It is a conceded fact that the larger trout are more often tempted with a well presented minnow than in any other manner. It seems that in different localities there is a tendency toward a particular method of using minnows. In some sections they simply attach the minnow by hooking it through the lips. In other sections the minnow fisherman carries a darning needle with a notch filed out of the eye. The leader loop is inserted in the eye and the needle inserted in the minnow's mouth and pushed through to protrude at the anal fin. The needle is then removed and a small double hook attached to the leader and the shank drawn into the minnow. This method proves to be very effective. When trout are striking short and nipping the tails from the minnows as they are prone to do at times, a good method is to insert the hook in the mouth and out through the gill. Then pass the hook through the lips and draw it back to the tail where it is imbedded in the flesh. By drawing the leader tight the minnow will bend slightly into an arc causing it to spin when it is retrieved. A small swivel should be used in this method.

When the much desired red fin minnows cannot be secured try making your own by painting the fins and a stripe along each side of an ordinary minnow with mercurochrome. I have seen this method turn the trick when others failed. Bucktail fishing is much to be preferred to the use of minnows, because it is more sporting, does away with the cumbersome



"I well remember an occasion when the necessary inducement was a grasshopper."

minnow bucket and does not deplete the stream of the natural food. There are on the market today some very good imitations of the natural minnow. Some of these lures actually seem alive as they dart through the water. For those who have gone into the ever increasing pastime of tying their own, with the permission of the Editor permit me to introduce a new

streamer I recently designed and in his honor have named the "Sweigart's Shiner" for the reason that he was largely instrumental in its development. It is dressed as follows. Body, green with a silver stripe; Top, Marabou dyed a pale green; Cheeks, jungle cock; and the head gray. I am expecting some good reports from this fly during this season.

## McKEAN ADDRESSES CRAWFORD SPORTSMEN

Merle Bideaux, of Woodcockboro was elected president of the Crawford County Branch, Sportsman's Council, at the organization's annual meeting—held in the third floor Bates block assembly rooms with an attendance of more than 400 persons.

In a busy season featured by the appearance of J. Fred McKean, of New Kensington, member of the Pennsylvania Board of Fish Commissioners, and by the council's decision to institute a spring dinner for sportsmen as an annual affair, the group also elected:

Jack Hezlep, of Meadville, vice president; Herman L. Weed, Lincolnville, financial secretary; Dr. George H. Buehler, Linesville, corresponding secretary; C. W. Fay, Titusville, treasurer, and Ivan E. Burkley, Cambridge Springs, as county director.

In reference to the annual spring dinner for sportsmen, the committee to arrange for the event comprises the new president, Mr. Bideaux, and the directors of the organization's 16 county chapters.

Member McKean of the fish commission told the Crawford County sportsmen that the state's fishermen "own nine hatcheries and 2,500 acres of land," and detailed the commission's 1938 fish stocking program. He urged organization of junior fishing projects and emphasized the fact that the commission is anxious to cooperate in such undertakings by supplying carp, suckers and other fish for stocking purposes. (Youngsters "join" these junior organizations and fish on stated days from a pond or other body of water in a community that has been stocked by a senior sportsmen's organization.)

The speaker urged that all fishermen fill out the blank coming with the fish law summary at the sale of the license, so that the commission may have means of knowing how many fish and what kind were caught during each season.

Other speakers appearing during the evening included District Game Protector George W. Keppler of Meadville, Travelling Game Protector John Kennedy, of Titusville, District Fish Warden Gerald Munson of Linesville, Pymatuning Refuge Keeper Burt Oudette, and various officers of the council organization. Oudette introduced Raymond Sickles, a recent graduate of the game commission training

school, who has been assigned to the Pymatuning as an assistant refuge keeper.

Various directors of community chapters reported, including W. A. Jackson, Conneaut Lake; A. B. Campbell, Espyville; Theodore Bartholomew, Titusville; Herman Weed, Canadota; Charles Marzka, Brown Hill; Rev. Mr. Webster for Springboro; Dr. Buehler, for Linesville; Mr. Fuller for Centerville; Dr. Daniels for Woodcock-Venango, and W. S. Murray for Meadville.

On motion of Murray, the council voted to give honorary memberships to all game and fish wardens stationed in the county.

Jack Hezlep, president of the Meadville chapter was general chairman of the committee in charge of arrangements, and O. A. Speakman headed a committee serving sandwiches and coffee for lunch. The meeting was held in the assembly rooms of the Slide Fastener Union.

The retiring county officers are: Richard S. Strouss, Sagertown, as president; Bideaux as vice-president; Burkley as secretary, and Weed as county director. Fay was re-elected for his third term as treasurer. Burkley had served two terms as secretary.



# ANYBODY CAN CATCH TROUT

By N. R. CASILLO

THE title of this piece is an assertion—and with artificials too. All that the angler needs to do is to locate the fish and find them in the mood. Parenthetically, however, the truth of the allegation is more than realized when one does encounter the conditions indicated regardless of what you use for lures, barring neither cellophane cigar jackets nor gaudily colored chewing gum wrappers.

At the moment I can't recall when I caught my first trout, but can only too vividly remember the time when I saw my first big one. It was at Profile Lake in New Hampshire. While peering down into the water under the boat dock, much to my astonishment and discomfiture, a scale bursting brook trout sidled up to within inches of my astonished eyes and plucked a red and gold cigar band from off the surface. It didn't retain the band for long, but long enough to have permitted the most sluggish angler to set the hook. What is more however, after repeatedly mouthing and discarding the gaudy piece, it finally swallowed it, seemingly smacked its lips in satisfaction and then triumphantly made off for deeper water. Right then and there I decided that the exalted brookie was not as discriminating in his choice of foods as he was cracked up to be.

That night in the almost pitch darkness of Franconia Notch I caught a nice mess of fish with the tiniest of black gnats. Well, after what I had observed that day and experienced that night I solemnly concluded that the wide variance in the brook trout's taste was a thing of wonder. Had I not seen one swallow something that didn't even remotely resemble its



natural fare, and again, pick from a Stygian surface bits of feathers that were scarcely discernible to the human eye in broad daylight?

And I only too well remember my chagrin and astonishment at the unprecedented accomplishment of an Akron tire salesman while attending a convention in the Notch; a feat which proved again that our native charr is not altogether fastidious nor wary.

The salesman sauntered down to the lake with a number of companions, observed me whipping the water near the upper end of the famous trout lake and asked the inevitable: "How they bitin' buddy?"

"I've got a few," I replied modestly, said modestly however, camouflaging the elation that surged through me as I lifted the lid of my well-filled creel.

"Holy smokes!" he cried. "Would you look at that?" And just as I had calculated, all of his companions gazed and gasped.

"What are you using?" he asked curiously as that well-known glint lighted up his eyes.

"I'm fishing wet with a Seth Green and a Yellow Sally," I replied.

"Oh yeah—oh well, I can't blame you for not wanting to tell how you caught them there fish," he answered ruefully.

"But . . .," I admonished, and then instead of attempting to explain, I reeled in my line and showed him the two wet flies on the thin leader.

"Oh, I see—fishin' fancy. Buddy, where can I borrow an outfit?"

"You might be able to get one at the hotel," I ventured.

Half an hour later he returned with one of his companions. The fishing outfit (procured from one of the bellboys), consisted of a rusty telescopic steel rod, a cheap reel and a Cutty-hunk line. The *piece de resistance* upon which

he reckoned the trout would try their teeth were plain nightcrawlers, huge fellows that would have delighted the heart and maw of a Mississippi mudcat. To my knowledge no one had ever openly used worms on Profile Lake. It wasn't exactly the thing to do and besides it was illegal and still is.

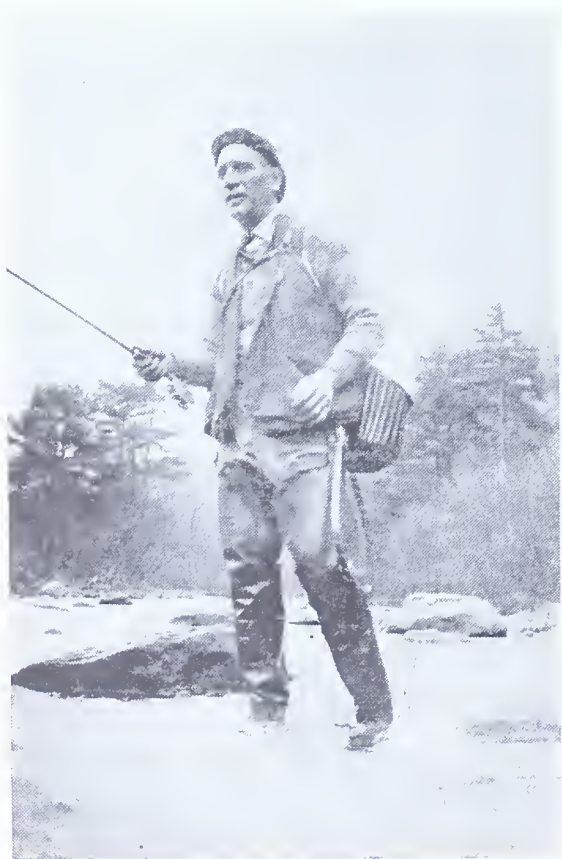
Embarking in one of the fine Adirondack skiffs that were then procurable, they set out down the lake, our hero rigging up while his companion plied the oars.

In a few minutes I heard a loud yell issue from behind the point around which they had recently disappeared and I knew from the intonation of that yell that the tire salesman had connected. Presently the yells began occurring so rapidly and regularly that I decided that the two must be killing the bottle of Highland Dew that I had seen peering from the salesman's hip pocket.

A couple of hours later as I passed the boat-house on my way up to the hotel, the two staggered through the door dragging a string of trout that caused me to give a couple of gasps. I reserved my opinions but guessed that they were bent on feeding speckled trout to the entire Akron delegation. The hankering for coarse fare (and doubtlessly a square meal), was the undoing of those sophisticated aristocrats accustomed to a diet of feathers and steel barbs.

Several years ago while fishing Little Sandy Creek in Venango County, I encountered a fisherman who had just emerged from a tangle of alders bordering a small tributary. After exchanging a few idle remarks I chanced to glance into his creel as he replenished it with fresh moss and aquatic plants. Much to my amazement it was almost filled with trout, all brookies as near as I could make out.

"That's a fine bunch of fish you have there," I remarked.



A Complete Angler on Scrubgrass Creek. Good Equipment Enhances the Sport of Fishing Even if it Doesn't get More Fish.



The fellow, who appeared to be a farmer, "reckoned it was," and obligingly dumped them out on the greensward to give me a better view.

"Golly, they're all natives," I said, surprised at the uncommon size of most of them.

"That little creek I fished contains nothing but speckled trout—yes sir, honest-to-goodness wild trout," he added with satisfaction.

"What did you get them on?"

"On worms and this," he answered, holding up a queer contraption made of a section of a yellow lead pencil, a couple of Rhode Island Red hackle feathers and a long-shanked hook. "The worm goes on this way," he demonstrated, looping the wriggling worm a couple of times before impaling it.

The unusual contrivance was something to be envisioned in a maniac's dream, but the important thing was that it worked. At that, I'm inclined to think that the worm played the most important role.

During a most unusual orgy of biting that seized the trout in Little Salmon Creek in Forest County a couple of years ago, I caught eight fish in less than twenty minutes with eight different flies.

At two P. M., my three companions had quit the stream in disgust. I suggested that they go on up to the car and eat lunch while waiting for me. At exactly 2:20 I arrived at a long, deep pool, a place that had failed to produce a single fish on a previous visit earlier in the day. This time I swished a Gray Gnat across its lower end and laid it in a pocket close to the roots of a big hemlock. In an instant the still surface was dimpled and I found myself fast to an eight inch native.

The next cast with the same fly failed to elicit a rise, so I quickly changed to a Black Midge. The first cast with this fly also hooked a fish. By the time the fish had quit hitting, some fifteen minutes later, I had used successfully, flies ranging from the original Gray Gnat that I had had on, to a ridiculously large Red Ibis. Incidentally, in the dozen or more years that I had had the Ibis in my possession, this was the first time I had ever hooked a fish with it.

Upon interviewing each of the three anglers that I encountered while returning to the car, they too reported the unusual activity of the trout during the twenty minute interval shortly after two o'clock. My waiting companions upon seeing the fish, expressed their wonder, took another nip from the bottle and opined that I was a good fisherman.

Perhaps some of you who have had more experience than I can account how a wary brown trout that has resisted the various temptations presented by large numbers of both skilled and unskilled anglers, finally succumbs to the wiles of a wriggling worm presented by a careless and indifferent fisherman?

I have in mind a twenty-inch brown who lived under a stump in Neshannock Creek, a short distance above the bridge on the New Wilmington-Volant road. For two successive seasons anglers throughout the district attempted to enslave the fish into taking a lure, but nothing doing. The big trout continued waxing fat and growing in wisdom and girth. Its Nemesis proved to be a lad from New Castle who was wont to go from stream to



Where the Big Ones Lurk. A Good Hole On Little Sandy Creek in Venango County.

stream and dunk a handful of worms fastened to a hook into the most likely looking holes.

That trout had seen thousands of worms presented in every way imaginable, had viewed scores of fishermen from under its retreat in the stream, and had possibly leered knowingly at all kinds of artificials and those grotesque "fish getters" that are frequently advertised. At last, however, it couldn't withstand that impulse or something, and ignominiously ended a brilliant career in the dim confines of a small gunny sack that the boy used for a creel. An incident that again proves that if one is on a stream when the fish are on the prod he will connect with any lure or bait, or expressed more succinctly, in spite of what he may be using.

I can well remember when I passed through that phase of what I like to term "super-scientific" angling, induced by my reading of angling articles by English authorities. That was when I carried a small scissors dangling from my neck, caught examples of the prevailing hatch, examined them minutely with my magnifier and then proceeded to "create" one from the makings that bulged from the numerous pockets of my English fishing jacket.

It was a gross breach of fishing etiquette to venture forth on an angling excursion without first taking the barometer and thermometer readings, note the direction of the wind if any, and as a final ceremony, dunk the thermometer in the stream upon my arrival thereon. Why? Search me.

The rest of the day was spent in covertly creeping from bush to tree or flopping flat on the ground when approaching some likely spot. No different in degree than the tactics employed by ye scientific golfer who carries everything but a surveyor's transit. That comparison is made to remind you that anglers are not the only nuts. Summarily, in spite of my equipment and methods I some times caught fish.

Therefore, regardless of whether you are a super-scientific angler or just an ordinary

worm dunker, you'll catch trout if any are present and if you find them in the mood.

Did some one say that a good trout fisherman can induce moody or otherwise temperamental trout to rise to some lure or fly? Perhaps, you mean that every good fisherman strives for those results. But that does not explain the variable results of two fishermen of equal skill, using similar equipment and fishing the same spots.

Accordingly, if you believe that results depend on the skill of the angler, then, it is my contention that trout recognize the individuals as they approach their lairs, passing up the skilled, finely equipt angler for the ragged urchin and his willow pole or vice versa. So what!

Conclusion: Anybody can catch trout.

### CONSIDER THESE HINTS IN COOKING THE CATCH

Here are two or three hints about cooking fish which were recently suggested by cookery specialists who have been studying the proper methods of preparing fish and sea foods.

In baking or broiling fish do it *quickly* to keep in the flavor, allowing from eight to ten minutes per inch thickness of fish, with a temperature of 450° to 500° Fahrenheit. Long, slow cooking is not required since fish have little connective tissue requiring to be softened. Lower the temperature after the first ten minutes, if cooking a thick whole fish. If a dry-meated variety of fish is used, sprinkle the outside with oil or cooking fat.

Allow from eight to ten minutes a pound when boiling fish, increasing to as much as fifteen minutes per pound if a very thick piece of fish is being used. Steaming requires a longer time than boiling; turn very thick pieces if the fish is being steamed. When using frozen fish it is best to cook it while it is still frozen; otherwise, the flavoring juices will escape. Frozen fish requires slightly longer cooking time than unfrozen fish.







## Fellow Sportsmen Honor G. A. Stewart at Testimonial Dinner in Clearfield

SPORTSMEN from twelve counties gathered in Clearfield on the evening of March 23 for the testimonial dinner in honor of G. Albert Stewart, Secretary of Forests and Waters. The event was a fine tribute to "G. A.", as he is affectionately known by many fellow anglers in central Pennsylvania. Harris G. Breth, in his livewire outdoor column, the "Hunting and Fishing Forum" in *The Oil City Blizzard* commented as follows on the keenly enjoyed affair. Sportsmen, here's news! News of complete cooperation between the Forests and Waters Department and the Game and Fish Commissions which has long been necessary for the proper conservation, protection, and propagation of Pennsylvania's wildlife. In appointing G. A. Stewart as Secretary of Forests and Waters, Governor James did something several state executives apparently overlooked. He appointed a man "from the sticks," a fine sportsman who knows the forests and waters from actual experience.

Last Thursday night the Clearfield County Sportsmen's Federation held a testimonial dinner in honor of Secretary Stewart who comes from Clearfield, which was attended by a jubilant and elated crowd of sportsmen from twelve counties. And to show you why the dinner was given him, I'm going to quote part of the report which appeared the next day in "The Clearfield Progress."

"Secretary G. A. Stewart cast off the cloak of official duties last night to become just plain 'G. A.' again to 230 neighbors and fellow sportsmen, who gathered here in his honor. The testimonial dinner was marked by pledges of cooperation between the Forests and Waters head and the fishermen and hunters whose interests he helps to promote.

"Besides being hailed as a No. 1 fisherman and No. 1 citizen, the Clearfield man was given a puff by Alex Sweigart, editor of the *PENNSYLVANIA ANGLER* as a 'fisherman who fishes for the fun of it whether the fish are hitting or not.' A. J. Haines of St. Marys, President of the North Central organized sportsmen, expressed high pleasure that an ardent fisherman had been named by Governor James to the Forests and Waters Department. 'We know that we have a friend there, and one who will work for our interests', he said.

"Mr. Stewart recounted several fishing experiences and paid tribute to this sport. 'Fishing makes brothers of men,' he said, 'regardless of their politics or creed'. He also appealed to sportsmen to be careful of forest fires which are one of their greatest enemies."

It seems to me that dinner marked a red letter event in the recent annals of sport in Pennsylvania. There was unbounded enthusiasm, and although the spotlight was directed at "G. A." himself, in the long run it means better sport for every individual hunter, fisherman, or outdoorsman by linking the state's entire outdoor activities in common purpose.

What I mean by that is that we need the forests for hunting and the waters for fishing. And while the Game and Fish Commissions administer the Game and Fish Laws and License Funds for the sportsmen, nevertheless many situations arise from time to time involving the Forest and Waters Department which can be solved only by all three seeing eye to eye.

I believe no one knows this better than Secretary Stewart, and that he is already and willing to do his part is shown when he said during his after dinner talk. "The Department of Forests and Waters is separate and apart from the Game and Fish Commissions but they are closely related. There should be the highest degree of cooperation. My hope is to have that cooperation. My hope is to give it."

No sportsman need be told the far reaching effects of this attitude on the part of the Forests and Waters Department.

At this dinner J. N. Morton of the Bureau of Refuges and Lands, State Game Commission, gave outdoorsmen plenty of food for thought. Among other things he pointed out that the crying need of wildlife conservation is more organization and individual sportsmen behind it. The 400 per cent increase in hunters in the last quarter century to over the 7,000,000 mark nationally have brought an increasing problem of supplying game. Favorable wild environment is disappearing, and since farmers own over half the land and water in Pennsylvania it is up to the hunters and fishermen to promote their good will and interest in conservation, if we want our sport to be maintained.

Of particular and timely interest to trout fishermen were the facts given by Alex Sweigart, editor of the *ANGLER*. After he had recounted several fishing episodes with G. A. Stewart long before he was given his present Cabinet Post he stated that about 500,000 legal trout from 7 to 12 inches long were ready to be stocked. The reason for this huge number was that the underground water table was insufficient to maintain an adequate flow in most of the trout streams last fall and trout ready then couldn't be stocked. He predicted one of the best seasons in years.

He gave a few tips on first of the season lures, suggesting "streamers and bucktails" or "garden hackle", saying that big trout around 20 inches can be taken particularly with streamers. I agree.

All in all, the dinner for Secretary Stewart was not a testimonial but a celebration in which sportsmen from far and near joined. From Pittsburgh came W. E. Guckert, Secretary of the Allegheny County Sportsmen's League, and A. F. Menzemer, Treasurer of the South Western Division of Pennsylvania's Federated Sportsmen. With them they carried an invitation from the South Western Division to "G. A." to speak at a sportsman's conclave in Pittsburgh April 20th, which he accepted.

Secretary Joe Barkley of Punxsutawney and Treasurer Bill Munsell, Emporium, of the North Central Division, were there and voiced their approval of the new F. & W. Secretary. Howard Stewart of Clearfield, former member of the Game Commission, acted as toastmaster. His introductory remarks, proving there is no relationship between the two Stewarts and good natured banter throughout the evening, gave an informal friendly touch to the entire program. No doubt many Venango sportsmen who attended the testimonial dinner for Charlie Stone at Mercer in January remember his abilities as toastmaster there.

So, sportsmen, I hope the "Forum" has today given you an understandable picture of the new Secretary of Forests and Waters. His many



Three fine brook trout, 10 to 11 inches in length. Al Chukauskas of Old Forge caught them in Gardner's Creek, Luzerne county. His brother Leonard is shown fishing in the background.

friends among active hunters and fishermen, his outdoors experience, his sportsmanship qualities—all summed up can mean but one thing—most important to you—complete cooperation in Pennsylvania's three administration divisions on the problems facing Pennsylvania's wildlife.

### SUGGESTS CAMPAIGN TO BEAUTIFY STREAMS

The *PENNSYLVANIA ANGLER* reaches many persons who are interested in keeping the streams in Pennsylvania beautiful and clean, writes Roy W. Schweiker, of Lansdale.

It is a common sight, when walking along many of Pennsylvania's streams—and I refer particularly to Montgomery County, but I do not believe that this county is any exception—to see an endless amount of tin cans, glass bottles, etc., that have been washed into the streams.

Many folks feel that when they have a ditch or a stream on their property it should be used for a common dump. When flood waters rise, the ditch becomes a tributary to a stream, and the result is that many pretty streams are becoming littered with unnecessary refuse.

It has occurred to the writer that through the medium of your paper you could carry on a general educational program so that the promiscuous dumping of waste materials along streams would be discouraged. Over a period of years it would seem that this condition could be bettered to a great extent.



# HOOP SNAKES

By PAUL L. SWANSON

EVERY so often one of them herpetologists (them guys as studies snakes and such like) tries to tell us that milk snakes don't milk; whip snakes don't whip and glass snakes ain't glass. And that they aint no such thing as a hoop snake. Now just because we don't see no hoop skirts no more aint no reason to say that they aint no such thing as a hoop snake. Same way with the hoop snake. Who knows but one of these days they will both be common again?

I got a sister that got a lot of books, and I just looked up in Eva's great big dictionary about hoops and hoop snakes. Yes, it got hoop snake in it, and it says this: "A harmless snake of the southern United States (*Abastor erythrogrammus*) . . . ." They are wrong about the southern United States, because we got them up here too. Then one of the things it says about "hoop" is this "4. The quantity of drink contained between any two adjacent hoops of a quart pot . . . obs." I don't know what obs means; maybe observant. As for that abastor erythrogrammus thing, I suppose that's the Latin name, although it looks like Greek to me.

Just in case some of you younger guys don't know nothing about hoop snakes, I'll tell you what they are like. Most of them are about ten feet long. Lots of guys like to exaggerate and say that they seen twenty foot ones; but most guys figger snakes is like fish, and you got to add a little to the size on account of the guys you tell it to is going to take some off anyway. They are about as big around as my wrist. Just in case you aint familiar with sizes of snakes, there are only four sizes. As big around as your thigh; as your arm; as your wrist and as your little finger. There are different standards of measuring length, depending on what kind of country you are in. Around here the big ones are as long as a length of casing (This is oil country, and casing is usually in 20 ft. lengths.) Medium sized ones are as long as a fence rail; average ones are as long as the narrator is tall, and small ones we just spread our hands. One measurement that is standard everywhere is that a fairly large snake stretches a foot on either side of a pair of auto tracks on a dirt road, when the snake is kind of wrinkly.

Well, I've sort of wandered off my description of the hoop snake. Some smarties have got to calling them "Hoope Snakes" in sort of an insinuating way; but they just don't know. A full grown hoop snake looks quite a bit like a wamper. (The wamper is a cross between a mountain black snake and a rattler. If a six foot black snake breeds with a five foot rattler, the result is an eleven foot wamper). The real hoop snake is mostly black on top and white or mottled underneath. Don't believe them stories about the fancy colors.

What makes them dangerous is the horn on the end of their tail. I never had nobody tell me how the poison was connected to this, but after watching hoop snakes for a good many years, I figgered out that they dip their tail in some kind of a poison weed, which makes a weapon something like an Indians poison arrow. Thats why they aint poison when you keep them in captivity.

When they get mad enough, like they often do when they see somebody killing field mice



Snake grasping tail in mouth, preparatory to rolling toward victim.

or young rabbits, which is what they like to eat, they just grab their tail in their mouth and start rolling like a hoop. When they get close to you, they straighten out and jab you with the point of their tail. About the only thing you can do then is to drink lots of whiskey, if you haven't already. This treatment, regardless of what else it does, makes you able to tell your experience better.

I've had hoop snakes after me lots of times, and have always been able to dodge. They are kind of easy to dodge from as they got to turn gradual. It seems as if they miss you



**HOOP SNAKE**  
The snake is now rolling alone. Note how the ventral surface is kept next to ground.



Snake "banking a turn" in changing its course of direction.

they got to hit something when they are in that mood, so they usually hit a cherry tree, which withers up and dies in short order.

One friend of mine told me about the time a hoop snake came after him when he was working on his wagon. Al had just killed a nest of mice under the wagon, which probably made the snake sore, because down he came! Al dodged the snake, but the critter hit the wagon tongue. That night they sawed up three cords of wood from that tongue. So Al thought he would raise hoop snakes and prevent any possible shortage in the timber supply. But I explained to him that if they couldn't get the weed they used for poison, they wouldn't be able to swell up any trees, and it would be too dangerous to let them run loose.

Here in Venango County a few years ago the copperheads were so thick that they became



As it nears its victim it lets loose of tail and darts tail first for the strike. Note the straightening out from coil to give force to strike.







# THE SPORTSMEN'S FORESTRY

**EDITOR'S NOTE:** *The following address on a subject vitally interesting to Pennsylvania sportsmen was delivered at a recent meeting in Allentown of the Lehigh county Fish and Game Protective Association by District Forester E. F. Brouse.*

I want to emphasize in the very beginning that foresters have regarded the sportsmen as friends of some years standing. If this tie-up is not recognized and clearly understood by the sportsmen I regretfully admit that likely it is due to the fact that we who are directing forestry in Pennsylvania apparently have been somewhat remiss in keeping you informed about the many developments affected in your behalf. It is my observation that few sportsmen are aware of the close relationship of forestry to the take of their rod and gun. This has been evident for some time but I am hopeful that you men may be kept abreast of the times as advanced steps influencing your sport are taken in the future. Certainly our forestry policy will provide, aside from growing timber, as adequately as possible for wild life, aquatic life, recreation in general, and more important, the conservation of our water supply and of our soil upon which actually our being depends. Sound forestry practices could not avoid doing good turns for the sportsmen even if the individuals who place them in effect wanted to, and they, most certainly, do not. There are no particular conflicts between good forest management and the management of the forests to the advantage particularly of fishermen and of but little less to the gunners and other privileged to enjoy recreation in our wilds.

I want to give you an easily understood definition and an explanation of forestry to provide some background so that the word picture that follows might be easily visualized. In the first place everyone ought to have a definite idea of what forestry actually embraces.

So few people know. True most people vaguely suspect that it has something to do with trees and woods and they are right as far as they go. But there is much more. Conservation, actually limited in scope, so often enters upon the scene at this point and reputedly attempts to fly the forestry banner but it is a much misused word, and in this instance inadequate. In fact "conservation" often is warped to meet a particular whim supposedly representing what appears to be the need of the hour. Forestry and conservation are not synonymous. The practice of forestry is a science and art and essentially means the upbuilding of the woods and all its parts for the greatest good to the greatest number over the longest period of time. This embraces farming, cultivating and caring for everything; soil, water, plant, wild life and from the soil to the terminal bud of the tallest tree. Conservation, narrower in concept, essentially means preserving what you have got. The foresters are not now, nor have they been in the past, satisfied with such a course. We are giving constructive and long range help to the fisherman, the gunner, the recreationist, the nature lover, the soils men, the water conservationist and flood control engineers and to the individuals connected with all of these avowed vocations in their everyday pursuits. Not the least of the benefits is more timber, so essential to us all. We in forestry are not yet ready to conserve and I doubt that we ever will be for forestry means use, and as applied to timber, forestry means grow and harvest. In our processes of forest management all of the users are fairly well taken care of and as time goes on you folks are going to see a great change for the good in the several phases of forestry, as undoubtedly you have in forest fire control, and tree planting, the farthest advanced and best known in the public mind today.

Fortunately the Foresters' and Game

Managers' interests coincide in most particulars of handling the woods. Notable among these are fire prevention and control. True sportsmen and sincere foresters see as one on these points. Without protection from fire there can be no forests or forestry. And without forestry, and principally the fire control branch of it, heaven help the gunner and his bag of game, a point I will take up more fully a little later on.

Fishermen have good cause to be even more zealous of well wooded mountains and valleys for their sport is entirely dependent upon water and water in turn to a considerable extent upon a tree cover over the ground and a blanket of leaves and humus immediately on the ground. It is common knowledge, but I want to repeat that fire destroys both, and actually will ruin good fishing streams and the resultant ashes and lye from fires will destroy the aquatic life (both fish and fish food) itself. The fact is established that well cared-for forest cover will permit less water in streams during periods of high soil saturation. It will at the same time reduce the scouring of food out of the stream beds by floods and too, it will definitely maintain a stronger flow in the stream during periods of light precipitation.

My belief is that fishermen take forest protection and particularly forest fires too philosophically. Their sport, whether their favorite stream is in mountain or valley, directly depends upon the absence of forest fires and the minimum of forest abuse. If they fully realized the dependence of their sport upon good forest cover they would demand that much further emphasis be placed upon the prevention and control of woods fires and further attempt to insure that the necessary help and support is forthcoming to affect an advanced and forceful program. Even though we are doing pretty well along this line at present, a point higher efficiency is attainable with a stronger public sentiment against woods burning. Since the fishermen are so vitally concerned some concerted and far reaching help might reasonably be expected of them.

I hardly need to tell you that formerly Pennsylvania was a great timber state for the name itself suggests that. It was so great in fact that it led all of the states in timber cut from 1860 to 1890. Then the decline began and today we stand in approximately the twentieth position. The cutting was so complete over the past 250 years that only about 25,000 acres of original forest remains. Through all these years, and particularly during the last half of the last century when timbering was at its height, there were thousands upon thousands of acres of slashing, and fires burned thousands of these acres; there was a great difference in the species and quality but burned or unburned sprouts followed in this succession of cutting, slashing, fire. If one were to believe some rather widely scattered current views about wild life food and cover those conditions were optimum for deer above all else. But was the deer herd at its peak and was Pennsylvania first as a game state in the Union? Rather far from it we are told, and far below the present figures of around 40,000 bucks a year and 100,000 to 125,000 does periodically; kills the rank and file of sportsmen surely regard as satisfactory. As a matter



Photo by F. W. Fisher

H. C. Stackpole (left) of St. Mary's and Dean Smith of Maplewood, N. J., fishing a promising stretch of trout water on Kettle Creek last season.





A "sample" of the trout stocked in Lancaster county streams. Dick Sullenberger snapped the picture.

game cover cannot be burned over and over again for a period of years and be had too. And the time is not so long ago that more game was burned in Pennsylvania practically every year than was taken by the gunners. In a bad fire year this situation may occur today. In this respect we are not so far away from yesteryear. But as the scope of fire protection broadened the food and cover increased to sustain the game and just as naturally the game itself increased. Surely this sequence is logical and is easily understood. The forest fire wardens cannot claim all of the honors nor are they attempting to for elevating Pennsylvania into the high position she enjoys today as a game state, but they deserve a great deal more credit than they received in recent years. In my estimation the wardens, their organized crews and their men are the sportsmen's unsung heroes.

While the curve of fire protection is at present showing an increasing efficiency yet a reawakening is needed. Man caused fires ought to be largely eliminated and if this could be done our losses would be negligible. On the whole this is going to be a slow and painstaking process. In spite of the fact that the situation is greatly improved it will interest you to know that over a period of the last ten years we reached a low of 35,000 acres a year of forest land burned-over and a high of 315,000 acres. With even infrequent occurrences such as the latter the need is apparent more than ever for an intensification of forest protection activities and more than ever we need the actual help of the sportsmen's clubs. The above figures do not account for the grass and field fires occurring annually especially in the Southeastern part of the State. Thousands of acres are prevented from returning naturally to trees thereby providing game food and cover and these same fires also prevent the inevitable conversion of marginal and idle areas into revenue producing crop land. And all this wastefulness is beyond the game that is actually destroyed, which is not insignificant, in itself. Certainly you people would not think of buying and stocking in the Spring a crate of rabbits and then the next day or next week going out and burning over the field or briar

patch where you liberated them. You might however put them out and let someone else burn them up for you yet raise no particular cry. And why? In my opinion largely because you have come to expect as a matter of course that the fire wardens or the local fire companies will take care of them for you. That's the story in reality as it is happening in the State as a whole only on a much larger scale. A fraction of the purchase price and a comparable amount of effort spent on fire protection undoubtedly would produce results that would startle all of us. Fire is absolutely foreign to a well balanced up-building program. Let us have none of it.

The statement has been repeated often that the forests are Pennsylvania's playgrounds. How true it is may be shown by citing the fact that 600,000 licensed gunners and 400,000 unlicensed property hunters are in forest and field in the fall of each year. The proponents of fishing point out that in addition to 400,000 licensed fishermen a million youngsters fish free Spring, Summer, Fall and to a limited extent during the Winter. Even if only half the gunners and half of the fishermen use the forest environment to pursue their sport still the figures stand out significantly. The foresters go still further and I want to tell you that 5¼ million people a year use the State Forests and Parks on practically a year around basis and how many people go to the privately owned parks, preserves and mountain places both winter and summer I do not know. Perhaps the number is as much as double this figure. While there is some duplication between gunners and fishermen and of both in the State Forest totals, yet the non-sportsman recreationists easily number 4 million or better on the State owned lands alone. This group is made up of the wives, daughters, sons and neighbors of sportsmen who go to the State Forests and State Parks for health, rest, camping, boating, picnicing, swimming and all sorts of recreation. Here is an outdoor host of considerable size and I feel fairly confident that most of the groups either consciously or subconsciously establish a pre-requisite in their chosen places of green woods: necessarily growing woods of appreciable worth. And who

of fact during the late years of the cutting era and for years afterward there were a great many counties in the State in which there seemed to be no vestige of big game. As for example, there had not been a deer killed in Westmoreland County for years until some time after they were introduced by the Game Commission and the Mellon Estate. The same thing is true of the South Mountain portion of Franklin and Adams Counties. Up until the game refuge was located on the Mont Alto forest in 1905 or 1906 deer had not been sighted for a long time and when on rare occasions one was seen it was usually reported as having come across the valley from the North Mountains. For the past 20 or more years deer have been plentiful in both of the sections mentioned.

It would seem then that this "first" business in respect to game kill did not come until years after the forests of the State were beyond the slashing and low sprout growth stage. I argue that the first "first" was forest fire control. In words too brief to do the huge accomplishment justice, the wantonness of the forest destruction era commanded the establishment of a department of forestry in the State Government and in it a bureau of fire control. Both grew and increased in efficiency the past 40 years. As the "protection" protected and the forests developed the wild life and the numbers in the game category increased, and accordingly the kill, so the records indicate. That fire control and forest building undeniably aided and abetted the Commission in bringing to us such large numbers of game birds and animals is due first to the very good and sufficient reason that game and game food and



Cedar Run in Cumberland county ranks well as big trout water.



among us would attempt to evaluate the beauty of our tree clad land and the joy and the inspiration we derive alone from green hills and valleys. Surely the value is high. Is it almost superfluous to point out to you that most of these forest uses and values are decimated or completely destroyed by the charred skeletons of trees, their inevitable associates and followers? Rather I will reiterate that well cared for forests supply more than timber and more than watershed protection and more than game food and cover and are more than soil building agents—the host to thousands of gunners, fishermen, campers, and nature lovers a combination of all these and more. The Sportsman is helped immensely and so are countless others in everybody's land . . . the domain of many uses . . . the Pennsylvania forests.

Some of the best hunting grounds and fishing waters are found within the State Forests. The State Forests represent only about one eighth of the total forested area in Pennsylvania yet nearly one-half of the number of deer and more than one-third of the number of bear, in addition to large quantities of small game, killed by hunters each year are shot within their boundaries. They contain 20 State game refuges and 13 auxiliary game refuges, the combined area of which is approximately 50,000 acres. I can tell you further that the first game preserves in Pennsylvania, and for many years the only ones, were located in the State Forests.

It is not by accident that the State Forests obviously are the best hunting and fishing grounds in Pennsylvania. The up-building has been going on for years and it is outstanding to my way of thinking. I am sure the fisherman will be pleased to know that more than 2,000 fish dams and 50 recreational dams have been constructed in State Forest streams and better still more than 1,500 miles of streams have been improved in accordance with the plans and practices of the Fish Commission. But undoubtedly the foremost reason for the excellence of the State Forests as a sporting

area is that they are better protected from fire than most other forested sections and furthermore they receive better all around care than the privately owned timberland, particularly. This care consists in addition to the protection from fire also protection as far as possible against insects and fungi and I want to interject here that a total of 310,000 acres of State forest land have been worked over eliminating or reducing the tree pests. The added care that forest practice dictates also entails improvement of the timber stand in other words determining as far as possible, the kind and quality of final crop trees. In this connection I am confident that you will be interested in knowing that more than 100,000 acres of the State Forests have been axe treated the past few years which removed inferior species and low quality trees. Furthermore a stock survey otherwise known as an inventory of the growing trees by species and size in the State Forests is more than 95 per cent completed. Working plans for each section of forest will be carefully developed. Some already are finished and others are in preparation. Planned improvement cutting and timbering will be continued as rapidly as possible on the balance of the million six hundred thousand acres. Harvesting will be done on a selection basis which means working over a given tract at fairly regular intervals thus breaking into the older trees (the over-story) permitting trees of several age classes and of different sizes to grow on the same area. As the improvement cuttings are carried further and as fire losses are lowered, the wild life supporting ability of the forests and the fish carrying capacity of the streams are bound to increase accordingly. I want to say also that aside from the State Forests there are about six hundred thousand acres of State game lands largely forested and upon which game improvement methods are being studied and carried out as fast as practicable. The Federal Government also owns almost a half million acres of forest land in Northwestern Pennsylvania known as the Allegheny National Forest.

The intensive forestry program underway is directed by a well trained staff. Emphasis is placed on wild life up-building and some really good work is being done. A semblance of forestry is practiced by hundreds of private individuals all over the State on perhaps a million or more acres of land. Whether the treatment is superficial or fairly intensive the Sportsmen are helped in some measure by this effort toward woods culture. Of course fire protection is State wide and covers both private and public lands.

I cannot neglect to tell you that tree planting on both public and private lands also has aided in the up-building cause. Nearly 50 million trees have been set out on the State Forest land and the State Department subsidized in a measure the planting of more than 135 million on private lands. Other millions have been planted too on both public and private areas. Regardless of the primary purpose the green plots are conspicuous all over the State today and they are now playing their part in feeding and housing game, protecting soil and water and contributing generally to our welfare and to that of the sportsmen in particular.

Beyond the woods treatment, the protection and reforestation I have mentioned I am impelled to add that the forests of Pennsylvania in the natural course of things tend to improve of their own accord if not disturbed too much by man with his fire brand. If a little patience is exercised awhile longer the forestry situation on the whole will be further enhanced many fold. The trees are continuing to grow in height and at the same time they are spreading out. Where there were saplings and poles 5 years ago the trees are not as numerous today. Nature and the axe equipped practitioner both are working toward a reduction in the number of trees per acre and essentially favoring growth of quality. In short as time goes on light will filter through the taller trees and encourage undergrowth. This very action is taking place over a large part of the State at the present time.

So by further reducing the devastation of fire, by planting the barren lands with cover and food providing trees and shrubs, by extending the axe treatment of woodland, with the assistance of nature and with a little patience for forestry essentially is planning for the future, the game situation promises to show as much improvement in the next decade as it did in the one just passed and who will deny that there was great progress. The fisherman and out-of-doors people, in general, will be rewarded equally as well and indeed it is highly probable that the upbuilding in their behalf will be even more pronounced. As time goes on the State Forests and other lands under sound forestry management more than ever are going to be recognized as the happy hunting and fishing grounds in Pennsylvania and a model from which to work in fashioning the sportsmen's program for the State as a whole.



Note the magnificent girth on these three brook trout taken in Tulpehocken Creek by D. J. Tobias, Lebanon. The largest brook 15 inches.

A big buck Indian had just ordered a ham sandwich at a drug counter and was peering between the slices of bread when he turned and said to the waiter—"Ugh, you slice 'em ham?"

The waiter replied, "Yes, I sliced the ham." "Ugh," grunted the Indian. "You darn near miss 'em."





Log and stone dam erected in Bushkill Creek, Northampton county.

## CCC TO IMPROVE TROUT STREAMS

District Forester Charles Hogeland has informed Fish Warden George Cross of the following program for stream improvement by CCC forces:

Camp S-78, Westport, 225 man hours on Two Mile Run; Camp S-75, Hyner, 450 man hours with \$25 for materials on Hyner Run and Youngwomans Creek; Camp S-120, Farandville, 500 man hours with \$24.75 on Lick Run and Ferney Run.

The set-up as arranged through the efforts of Mr. Hogeland will aid in the conservation of fish and an improvement in fishing conditions in the several popular streams. Small dams are made which protect the fish in dry weather.

## CLEARFIELD ANGLERS SCHOOL FLY CASTERS

There were more than 40 fly casters enrolled in the first session of the fly casting school, being conducted by the Y. M. C. A. The school's first session was held in April in the "Y" gym. There were three more sessions scheduled to be held on Wednesday evenings during April.

These fly casting schools are open to any person and there is no charge for enrollment. It is the hope of the Y. M. C. A. that more people will avail themselves of this opportunity to either learn to cast flies or practice at their favorite sport.

There are no paid instructors conducting the classes. Instruction is based on the fact that no matter how good a fly caster you are there is always some person that is a little better than you are at casting flies and is willing to help you to improve your casting.

## FINED FOR NETTING FISH

Howard Johnson and Amos Larue, both of Peach Bottom, charged with netting fish, were fined \$25 and costs each when they pleaded guilty before Justice of the Peace Samuel Gall, Quarryville.

Charges of assault and battery against the pair brought by George Wiley, of near Peach Bottom, in behalf of his son, Elmer, were withdrawn.

## FISHING CONTEST PRIZES AWARDED

Prizes in the fishing contest sponsored during 1938 by the Lappawinzo Fish and Game Protective Association were awarded as the club announced that the contest for 1939 would open with the beginning of the trout season on April 15.

Awards, presented at the meeting of the club held at its quarters near Kreidersville went to Paul Leganza, for a small mouth bass weighing 4 pounds, 15 ounces; to Charles Coleman, for a large mouth bass weighing 4 pounds, 4 ounces, and for a small mouth bass weighing 2 pounds, 10 ounces; to George Miller, for a small mouth bass weighing 2 pounds, 9 ounces; to Ed Loch, for a calico bass weighing three-quarters of a pound; and to Ralph F. Smith, for a catfish weighing 1 pound, 13 ounces. The vermin control prize was awarded to Asher Snyder of Berlinsville.

They were arguing as to whether it was correct to say a hen "she is sitting," or "she is setting."

"The question," said the farmer, "don't interest me at all. What I want to know when I hear a hen cackle is whether she is laying or lying."

## RECREATION CENTER PLANNED FOR COAL RUN

At the annual meeting of the Decatur Township Sportsmen's Club, composed of 175 sportsmen from the Osceola Mills and Osceola Mills R. D. regions, held at the Scotch Hollow school house in March, it was decided to make the Coal Run stream near Osceola into a recreation center.

According to plans of the sportsmen the stream will be dammed and made into a swimming pool at one section and the rest of the stream will be stocked for fishing.

With the exception of three drill holes which are spouting sulphur water into Coal Run the stream is pure. The pollution of sulphur water is coming from an abandoned mine and sportsmen will take steps to have the drill holes sealed.

When the pollution is stopped and the stream is stocked with fish there will be four miles of excellent fishing stream.

Arthur Williams, of Osceola Mills, was elected president of the organization for the coming year. He succeeds Norman Stevens who held the position of president during the first year of the club's existence.

Mr. Stevens, past president, was elected to the office of fish and game.



This fine catch of brook trout was made last season on Stony Creek, Dauphin county, by George Starnor of Harrisburg.



## PAYS TRIBUTE TO LATE J. M. BEYER

From Joe H. Barkley, of Punxsutawney, vice chairman and secretary of the Pennsylvania Federation of Sportsmen's Clubs, North Central Division, comes the following tribute to the late J. M. Beyer, Punxsutawney druggist and a veteran trout fisherman.

"J. M., as he was known to young and old alike, was well known in the wilds of Potter county and knew every inch of the best trout streams there as well as the streams within all the counties in this section of the state. He died on December 30, 1938, in his 87th year. Until the last year of his life he trout fished, and many of us thought that he lived from one year to the next just to go trout fishing. He was a charter member of the Elks Lodge here and the second Exalted Ruler of the Lodge. Had S. Smith, yes, 'Had from Wilkes-Barre,' was the first. Had left here over 43 years ago.

"J. M. was a druggist in Punxsutawney for over 50 years and his son is carrying on. You could always talk fishing in there and many a nice catch of fish was taken in the storc."

The following splendid poem concerning J.M. was dedicated to his memory by Frank Jackson, former superintendent of schools in Punxsutawney.

### STREAM'S END

Where the brook ran cool  
And the shadows lurked  
At the curve of a birchen root;  
He cast his fly,  
As a fisherman will,  
In the piscator's pursuit.

In the heyday of youth  
The stream ran free,  
The current was strong and deep:  
In manhood full  
It was at its flood,  
With the strength of a life at peak.

But the current loitred,  
The eddies came,  
The water grew wide and still;  
And the stream of life  
Had become a load,  
As the stream of life ever will.

Though the final cast  
Was full and strong,  
The trout did not rise that day;  
And the fisherman's creel,  
Of life was full,  
With sunset not far away.

Where the water shimmered,  
And pools were clear,  
God's sunlight o'erspread the scene;  
So the fisherman  
Laid his rod aside,  
And fell asleep by the stream.

—Frank Staples Jackson.

In memory of J. M. Beyer in whose company the author spent a never to be forgotten week in the favorite haunts of "J. M." amid the wilds of Kettle Creek, Pennsylvania.

## FARMERS-SPORTSMEN CLUB ORGANIZED

A Farmers' and Sportsmen's Protective Association, similar to the one now active in the Ligonier Valley, has been organized at Weltytown, near Kecksburg, with a membership comprising most of the landowners in that section.

Permission to hunt on the ground of association members will be by card, just as is done by the Valley Association.

By the time the next hunting season arrives, it is expected that the association will have 300 or more landowners as members.

George Heindman is president, Mr. Schultz, secretary and Will Frye, treasurer.

Several primary refuges will be set up within the territory and fenced off. The sportsmen are also planning a hatching and breeding program. A quantity of ringneck eggs will be purchased for hatching purposes.

The new club holds its meetings in the Weltytown school house.

## TROUT ELECTROCUTED; REPLACED BY COMPANY

Two hundred brook trout which were electrocuted during a storm when high-voltage electric wires fell into the Breinig creek, near Trexlertown, were replaced by 200 brook trout ranging from 8½ to 9 inches.

The creek was stocked by the Rural Sportsmen's Association of Upper Macungie township with 200 trout, President W. S. Hall said. The trout, he declared, were purchased and given to the association by the Pennsylvania Power and Light Co.

Mr. Hall said that the fish "seemingly exploded when the electric charge was passed into the creek." The wires fell into the creek near the properties of George K. Mosser and Irwin Poe, Trexlertown.

Breinig creek is a tributary to Spring creek, Lehigh county.



Time out for trout stockers. Howard George and Bill Meckling warm up while releasing legal size brown trout in the Manada Creek, Dauphin county.



UNION SPORTSMEN AT BIG DINNER

One hundred and thirty-five sportsmen attended the annual banquet, held in the Masonic building, Mifflinburg, on April 4. Officials of the State Game and Fish Departments were present with visitors from other sportsmen's clubs. An excellent chicken supper was served by the ladies of the Mifflinburg Evangelical Church.

After the supper, C. Asher Kniss, president of the Sportsmen's Association, acting as toastmaster, introduced Mr. George Hassenplug, treasurer of the Lycoming County Consolidated Sportsmen's Clubs, Judge Leshner, of Lewisburg, Fish Warden Arthur Snyder, and the following members of the protection division of the Game Department: Fred Fisher, Mifflinburg, Charles Shannon, Mifflinburg, Geo. Dieffenderfer, Shamokin, Mr. Miller, Lewisburg and Mr. Ebright, of Allenwood.

The first speaker of the evening was Dalton Bell, of Williamsport, former president of the Lycoming County Consolidated Sportsmen's Clubs, who stressed the need of cooperation between sportsmen and with the officials of sportsmen's association as a requisite in building a successful organization.

Samuel Castner, of Williamsport, a member of the Game Commission, was the next speaker and in a friendly talk told the sportsmen of the research work being done at the Loyalsock Game Farm to determine the kind of cover, food, etc., necessary to make a home in which game can live and propagate. He described a machine, the only one of its kind in the world, in which all kinds of weather conditions can be artificially reproduced for experimental work on all kinds of game.

Following Mr. Castner's talk the toastmaster introduced Mr. John B. Ross, Division Game Supervisor, of Williamsport, who has charge of Bradford, Columbia, Lycoming, Montour, Northumberland, Snyder, Union, Sullivan and Tioga Counties. Mr. Ross, who has been with the Game Commission since it was formed twenty years ago spoke of the difficulties of the protector at that time compared with the splendid cooperation of the sportsmen today. He also told some interesting bear and wild cat stories.

The last speaker of the evening was C. R. Buller, of Bellefonte, Chief Fish Culturist in charge of all fish propagation in the State of Pennsylvania, and a man who has no peer in his profession. Mr. Buller spoke of the service the Fish Commission is trying to render the fisherman, in stream survey work to determine the best waters for stocking the various kinds of trout and other game and food fish. He explained the reason for the policy of increased spring stocking of trout which is due to the lack of food in our streams to maintain a large fish population over the summer and winter months.

The remainder of the evening's program was devoted to motion pictures from the Game Department, shown by Henry Schell, of the Department of Education of the Commission. Several reels of fishing and Moose hunting in Canada, a portion of which was in beautiful Kodachrome shown by Mr. Harold Musser, of Mifflinburg, and several reels of interesting pictures of Moose hunting in Canada shown by Mr. Maynard Reitz, of Winfield.



Photo by C. J. Hartle  
C. C. Barnett, Milroy, displays two big brown trout he landed last season in Spring Creek, Centre county.

Dr. Slicem: "Now, don't worry about your wife. You'll have a different woman when she gets back from the hospital."

Chubbywitt: "But what if she finds it out, Doc?"

Doctor: "You cough with greater ease this morning, I see."

Patient: "Why shouldn't I? I've been practicing all night."

The meek little man came up to the policeman on the street corner. "Excuse me, officer, but I've been waiting here for my wife for over an hour. Would you be so kind as to tell me to move on!"

Judge: "What proof have you that your client is insane?"

Attorney: "Your honor, he thinks he knows just what his insurance policy covers."



## WET FLIES

(Continued from Page 2)

### No. 7 Alder

The alder fly *Sialis infumata* is over the water around the first week of May and its imitation is probably most successful when used as a wet fly.

Body, peacock herl; hackle, black; wings, blackish brown turkey tail feathers.

### No. 8 Wickhams Fancy

This fly was named after Dr. C. T. Wickham, an old English angler.

Body, gold tinsel, palmer tied with red brown hackle and ribbed with gold wire; hackle, red brown; tail red brown hackle fibres; wings, dark starling.

### No. 9 Teal and Orange

This is a very successful pattern and no fly book is complete without it.

Body, orange wool, ribbed with gold wire; hackle, red brown; tail, golden pheasant fibres; wings, teal.

### No. 10 March Brown

On our streams we have several mayflies which in the sub-imago stage simulate the March Brown. These are *Siphonurus alternatus* and *Stenonema vicarium*, the latter fly being quite common on the Penns Creek around the middle of May. I believe that there are at least fifty dressings for this fly, no two of which are alike.

Body, chocolate brown floss silk ribbed with yellow thread; hackle, brown partridge; tail, brown mallard fibres; wings, hen pheasant.

### No. 11 Pink Lady

This fly is credited to George M. L. LaBranche, who discovered it quite by accident when fishing with a King of the Waters, color of which had faded to a pink shade. That it is a successful fly, no one will deny, but its success no doubt hinges on the fact that it bears an extraordinary resemblance to certain sub-imagoes of the *Stenonema interpunctatum* group of mayflies.

Body, pink floss silk; hackle, ginger; tail, ginger hackle fibres; wings, starling.

### No. 12 Ginger Quill

This is a most successful fly on our waters and is a favorite with many anglers. Its origin is clothed in mystery, but it bears such a striking resemblance to *Stenonema fuscum* in the imago stage that one wonders how it could have been patterned after any other mayfly. The dun or sub-imago has mottled wings which are best represented, by a speckled mandarin feather. Otherwise the dressing is the same as that given below for the spinner.

Body, peacock quill; hackle, ginger; tail, ginger hackle fibres; wings, starling.

### No. 13 Royal Coachman

This fly was first made in 1878 by John Haily, a New York fly tyer. It is now so well known that everyone is familiar with its dressing.

Body, peacock herl, with a scarlet floss silk band in the center; hackle, red brown; tail, golden pheasant fibres; wings, white duck.

### No. 14 Stone Fly

This fly is patterned after *Perla capitata*, a stone fly that is commonly found on the majority of our Pennsylvania streams.



The final stage of their journey to the stream for these legal browns.

Body, dubbing made from hares ear, mixed with yellow worsted and tipped with yellow; hackle, ginger; tail, brown mottled partridge fibres; wings, hen pheasant.

### No. 15 Fish Fly

The prototype of this fly is *Chauliodes serricornis*. During the latter part of May it may be seen in the bright sunshine, flying sluggishly among the willows bordering the stream.

Body, a dubbing of black and brown wool, ribbed with yellow silk; hackle, dun; wings, grey mottled turkey.

### No. 16 Cahill

Other than being named after a Dublin fly tyer, little is known concerning the origin of this fly.

Body, dubbing of blue rabbit fur; hackle, red brown; tail, mandarin fibres; wings, mandarin.

### No. 17 Grizzly King

This fly was a favorite of Seth Green, noted New York fish culturist. With the exception of the green body and grey hackle, it is similar to the Professor.

Body, green floss silk, ribbed with gold tinsel; hackle, grey or grizzly; tail, scarlet fibres; wings, mottled mallard.

### No. 18 Rube Wood

This fly was named after Reuben Wood, a great fisherman.

Body, white chenille, with scarlet floss silk tip; hackle, dark ginger; tail brown mallard fibres; wings, mottled mallard.

### No. 19 Little Black Caddis

In the early part of the season, small black flies predominate over the water. These are usually the stone flies *Taeniopteryx fasciata*, *Capnia vernalis*, and the small caddis fly *Chimarra aterrima*.

Body, black wool dubbing; hackle, red brown; wings, coot or blackbird.

### No. 20 Morrison

According to an old volume, long out of print, this fly was named after Colonel L. Morrison of Lock Haven in the year 1886. It would be of interest to know more about the Colonel, for the fly he originated is a most successful wet pattern.

Body, claret floss silk, ribbed with black thread; hackle, black; tail, crow feather fibres; wings, crow or blackbird.

### No. 21 Governor

This fly originated in England and was supposed to represent a beetle found on their waters.

Body, peacock herl, tipped with scarlet floss silk; sometimes with orange; hackle, red brown; wings, woodcock.

### No. 22 Black Quill

This fly is an imitation of the mayfly, *Blasturus cupidus*. Depending on the weather, this insect may be noticed over the slower moving streams from the latter part of April up until the middle of June. On the Penns Creek it is very common and is generally known as the Black Quill. It exists for two days in this stage, then it sheds the sub-imago skin and ventures forth as the Early Brown Spinner.

Body, dark peacock quill; hackle, dark, red brown; tail, brown mottled mallard; wings, lead color, (heron, pigeon or duck.)

### No. 23 Early Brown Spinner

This fly is the spinner or imago of the Black Quill. After the subimago skin is shed, the wings lose their lead, slate grey color, and the two outer tails increase in length, the middle one remaining very short.

Body, brown crewel wool; hackle, red brown; tail, mandarin duck fibres; wings, light starling.

### No. 24 Gold Ribbed Hare's Ear

The name of this fly is derived from the fact that the dubbing body is secured from the base of an English hare's ear.

Body, dubbing of hare's ear, ribbed with gold tinsel; hackle, none; tail, brown mallard fibres; wings, starling.

### No. 25 King of the Water

Little is known concerning the origin of this fly but it is one of the oldest American patterns.

Body, scarlet floss silk, ribbed with gold tinsel; hackle red brown; wings, mottled mallard.

### No. 26 Queen of the Water

This fly is another invention of the old time angler and Professor, Christopher North.

Body, orange floss silk, ribbed with gold wire and palmer tied with red brown hackle; hackle, red brown; wings, mottled mallard.

### No. 27 Red Hackle

This is the oldest known pattern of trout fly and dates back to A.D. 230.

Body, red wool ribbed with gold tinsel or sometimes plain peacock herl; hackle, red brown.

### No. 28 Red Ant

This fly is an imitation of the winged ants, which occasionally come on the water in good numbers.

Body, red floss silk with peacock herl tip; hackle, red brown; wings, starling.



## VETERAN SCHUYLKILL ANGLER EAGERLY AWAITED OPENING DAY

A Minersville man who has been a fly fisherman for more than a half century is Charles F. Kear, 70 years old, who in spite of his advanced years, is just as eagerly awaiting the opening day of trout season as he did when a young fellow years ago, wrote Jack Richards, of Pottsville, prior to the opening of trout season.

His sight isn't what it used to be, his legs are a trifle shaky, but his fishing rod is all varnished and ready for use, his flies and tackle are in order and bright and early on the opening day he will be found on some stream where he may fish in safety and enjoy the sport which he considers the closest to heaven one can get on this earthly sphere.

His fishing is not catching trout to take home or destroy—it is to return them gently to the water from whence they came so that they may be there the next time he goes out and give him the same battle over again.

There are many fishermen in this county, but the one we like best to address as a sportsman is Mr. Kear, for he is a true sportsman if ever one lived.

For nearly all of his 70 years he has been a fisherman, starting out when only a young lad of tender years with worms, later switching to minnows and then about a half century ago



Proud? You bet. Shown is Frankie Brouse, 9, son of District Forester E. F. Brouse, Norristown, with 9½ inch sunfish he caught in Promise Land Lake.

becoming a fly fisherman and sticking to flies ever since.

Mr. Kear says he received his first lessons in fly fishing on the old Indian Run dam from Jiles Blunt, an old English coachman who was recognized as the peer of all fly fishermen of his time in this county. Blunt learned his skill in England and he was the idol and the model of all the younger generation who marveled at the skill with which he tossed a fly and hooked a trout.

Another fisherman from whom Mr. Kear learned a great deal was George Bowe, a pal of Blunt and these three would spend hours at Indian Run where brook trout abounded in those days.

The first fly Mr. Kear ever used was a brown hackle, and it was with this fly he acquired much of the skill which he retains to this day.

Some time after he started fly fishing, Mr. Kear became interested in tying his own flies and here, too, he was taught by another old timer from Minersville, Clem Phillips. The latter had his own patterns which he developed from the flies he saw on the Indian Run dam and when Phillips made a fly usually it was one that would take trout. Mr. Kear, for years, tied all his own flies, thanks to the instructions of Phillips, but due to failing eyesight was forced to give this up a couple of years ago.

Mr. Kear in his time has fished on nearly all of the important streams in eastern Pennsylvania, particularly in the Pocono mountains. He has taken trout from the Lehigh, Marshals Creek, Wild Creek, Dotters Creek and others too numerous to mention. One of his favorite fishing pals years ago was Dr. Wm. F. Kistler, of Minersville.

When these two went fishing to the Poconos it was usually a three or four-day trip. They would leave Minersville in the morning at 7 o'clock and by trolley car and steam train and finally by stage coach would reach Kresgeville, their usual destination late that evening.

Nowadays (he still drives his own auto) Mr. Kear says he can drive to Kresgeville in an hour and a half and he is ready to enjoy fishing and the expense is far less than it was in his younger days.

Mr. Kear's favorite stream for years has been Stony Creek, along the S. & S. Railroad,

about 20 miles west of Pinegrove. Here, with a number of Minersville men, he had a cabin for years, but seven years ago it burned to the ground. It was in Stony Creek that Mr. Kear caught the largest brook trout he has ever taken on a fly—a 14-incher.

He was fishing one afternoon in a particularly wild spot, hard to reach, says Mr. Kear, as he recalls the experience. He had let his fly float down the stream and as he was about to retrieve it he thought it was caught on a log there. A twitch of the rod and he felt the vibration of the trout's body as the hook was set. Then he had a fight on his hands such as he has never experienced before or since, he says, until he finally landed the beauty.

One of his favorite dry flies for years has been a gray hackle and he finds he still can take plenty of trout on it.

Since their cabin burned down some years ago Mr. Kear hasn't had the opportunity to fish Stony Creek. A few years ago, however, he and George Oerther, Prof. Raudebush, Ed. Rothermel, Dr. John W. Clay, Dr. G. A. Merkle and Carl W. Kear, of Minersville, leased a pond in the western part of the county which they stock each year with trout. Only barbless hooks are used and most of the trout taken from this pool are returned again. Here is where Mr. Kear now does most of his fishing, since he finds streams somewhat dangerous at his age. Last season on the opening day he hooked almost 30 trout from his pool but brought only a few of them home.

He considers Al Bond of Pinegrove one of the best sportsmen he has ever fished with and has seen Al time after time release and return to the stream at High Bridge trout that went up to 14 and 16 inches.

His son, Collier H. Kear, to whom he always has been a pal, three years ago took the largest brook trout in Pennsylvania from Black Creek, near Tremont. Mr. Kear finds as much pleasure in his son's feat as if he had caught the trout himself.

He urges fishermen to be sportsmen while on the stream—to give the trout a chance for its life. Like the fish commission, he advocates if you would have more sport, and catch more fish, you must kill less.



S. G. Overmoyer of New Lebanon with a 20 pound carp taken in French Creek. Lure used—a crayfish.



## FISH AWARDS GIVEN AT PIONEER MEETING

Speeches, movies, tall stories and refreshments provided the varied program at the annual spring meeting of the Pioneer Fish and Game association in the Farmart, in Allentown, when 367 new members were admitted to the organization.

More than 700 members attended the meeting at which numerous fish awards were presented by William Talbot; John Boxterman and E. Fred Brouse showed interesting sound motion pictures, and tall stories were told by the more nimble-tongued members. Prize for this contest was won by Robert J. Wheeler.

Speakers included District Fish Warden C. Joel Young, Lehigh County Game Protector William A. Moyer, Attorney Samuel D. Frederick, District Forester E. Fred Brouse, Commissioner of Fisheries Charles A. French, Ira F. Thomas, scout for the Philadelphia Athletics; Robert E. Brader, clerk of quarter sessions, who also served as master of ceremonies.

Prize winners were: Brook trout, first, Pete Kuhns, 313 N. 13 St., 14¼ inches, 1 lb., 4 oz.; Rainbow trout, first, Paul Marcks, 973 Cedar St., 21 inches, 3 lbs., 8 oz.; second Roy Klepinger, 630 N. 10th St., 20 inches, 2 lbs., 14 oz.; Brown trout, first, Charles D. Heinly, 1115 Green St., 19½ inches, 3 lbs., 2 oz.; second, Howard Gangwer, 730 Fountain St., 19 inches, 2 lbs., 2 oz.

Small mouth black bass, first, Joseph Kurtz, Mt. Bethel, R. 1, 22¾ inches, 5 lbs., 2 oz.; second, Ernest Stalek, 638 Union St., 20½ inches, 4 lbs., 2 oz.; Large mouth black bass, first, Wilbur Moser, 1501 S. Albert St., 22 inches, 5 lbs., 3 oz.; second, Samuel Berkemeyer, 922 Court St., 19½ inches, 4 lbs., 8 oz.

Pickrel, first, Earl H. Burger, 628 Greenleaf St., 25½ inches, 4 lbs., 6 oz.; second, Howard Stump, 849 N. 8th St., 23¼ inches, 3 lbs., 4 oz.; Walleyed pike, first, Walter Witczak, 1342 Liberty St., 22⅞ inches, 3 lbs., 12 oz.; second, Frank Kleinsorge, 513 N. Law St., 22 inches, 3 lbs., 4 oz.; Trout "fly" contest (caught by wet or dry fly only) first, C. Robert Glover, 217 N. 17th St., 16½ inches, 1 lb., 9 oz.; Junior member contest, Pickrel, first, Eugene Baer, 2013 Liberty St. 20¼ inches, 2 lbs., 13 oz.

Honorable mention went to the following: Owen Hoffman, East Greenville for a small mouth black bass, 18 in., 3 lbs., 2 oz.; Ruddy Hassler, 939 Green St., for a large mouth black bass, 19 in., 4 lbs., 2 oz.; Howard Rabert, 1142 N. 18th St., for a large mouth black bass, 19 in., 4 lbs.

There were no entries submitted for the lady members contest.

William E. Swope was chairman of the committee in charge. Other members were: Howard Gangwer, Harry Paff, Daniel Green, Samuel Berkemeyer, Ruddy Hassler, William Snyder, Harry Petrey, Millard Petry, Howard Stump, Leo Bateman, Harold Moll, James Biery, William Henninger, C. Robert Glover, R. D. Dreisbach, Harvey Neff, Arthur Lutz, James A. Savage, Arthur Moyer, Blair Cunningham, Robert Ackerman, William E. Talbot.



Log dam constructed on Spring Creek, Lehigh county trout stream.

## TRY "LIE DETECTOR" ON FISHERMEN

Sportsmanship as practiced by the Unami Fish and Game Protective Association of Emmaus is serious business, but cares were laid aside as upwards of a hundred members gathered in the Owl's auditorium for the annual dinner in March.

Perhaps the high light of the festive occasion was provided when J. F. Wagner, noted criminologist, produced a lie detector and applied it to those who were given the awards for catching the prize fish last year. William S. "Bill" Iobst, the well-known scribe was the first victim and the needle on the detector did all kinds of stunts as Bill related in graphic language how he landed the mammoth members of the finny tribe.

The prize winning fish and those who caught them were Millard Wilson, 18½ inch brown trout weighing 1 lb. 10 oz., taken from the Little Lehigh; Earl Cope, 18½ inch black bass weighing 4 lbs. 4 ozs., captured in the Perkio-men; Harry Keim, 19 inch brown trout weighing 1 lb., 12 oz., and also caught in the Little Lehigh. Warren Vogel Jr., was awarded the Boy Scout prize for taking a 20 inch brown trout weighing 2 lbs and 12 ozs., out of the Little Lehigh.



This five-legged frog was captured at Sharon in 1923.

## NORTH TIER WATERS HEAVILY STOCKED

I am giving you a list of streams which have been stocked since the closing of the 1938 season. They have been in very good condition during the past winter; lots of water, and not much ice, writes Warden Leland Cloos of Middleburg Center, Tioga county.

Among our outstanding streams that have been stocked are: Pine Creek, which heads in Potter county running parallel to U. S. Route No. 6 for a distance of twenty-five miles, which can easily be reached from any point on the highway; Long Run, Phoenix Run, Asaph Run, Straight Run, Four Mile Run, Kettle Creek, and Elk Run can be reached in a few minutes drive from Gaines, Pa., which is on U. S. Route No. 6, providing that we get a few hours of sunshine to dry out the forestry and dirt roads, as they are in very bad condition at the present time.

Our leading streams in Eastern half of county include: Head waters of Tioga River, which can be reached from Blossburg, Pa., by traveling East through Morris Run; Bailey Creek, tributary to Mill Creek, can be reached by traveling East over Route No. 549 from Mansfield; Stony Fork Creek, and Long Run tributary to Babbs Creek can be reached from Morris, Pa., in a ten minute drive; Lower Pine Creek, which heads in Potter County running through Tioga and into Lycoming, a distance of about seventy miles can be reached from Jersey Shore, Pa., over Route No. 44 and Route No. 893; Cedar Run, tributary to Pine Creek, a restricted stream along with Slate Run and Young Womans Creek which all head near the Coudersport Pike, can be reached from either Coudersport or Jersey Shore by traveling over Pike.

Many lodges with all kinds of accommodations are located throughout the county. All Tioga County Sportsmen, including fourteen active Clubs, welcome all fishermen and invite them to visit Pennsylvania's Grand Canyon, overlooking Pine Creek a very short distance from Wellsboro, on U. S. Route No. 6.

"Do Englishmen use American slang?"

"Some of them do. Why?"

"My daughter is being married in London, and the duke just cabled me to come across."





A fine trout pool on Falling Spring stream near Chambersburg, Franklin county.

## LYCOMING ANGLERS PLEASED WITH TROUT

All of the men who have been helping to stock Lycoming County streams this spring have been impressed by the fine condition of the trout which have been sent here by the hatchery at Bellefonte, writes Dick Fortney, outdoor editor for the *Williamsport Grit*.

All are fat and beautifully colored. It is not unusual for some of the larger ones actually to leap out of the buckets in which they are carried from the hatchery trucks to the stream.

Once in the water the fish disappear with amazing speed. Some duck under convenient cover, and others dart swiftly upstream out of sight.

We personally have helped with the stocking of nearly 6,000 trout and in all that number have seen only one which was apparently sick or injured. That one was a little fellow.

The \$1.60 which a fisherman in Lycoming County, or any other nearby county, pays for his license comes back to him many-fold.

It costs the State of Pennsylvania about 48 cents a pound to rear trout in the hatchery at Bellefonte, from which the fish planted in this locality come. And during 1938 the state stocked in the streams some 174 tons of trout of all species, of which Central Pennsylvania received its share.

Incidentally, fish culturists at the Bellefonte hatchery have calculated that it takes four and one-half pounds of food—chiefly liver and ground fish—to produce one pound of live trout.

An interesting story comes from the Bellefonte hatchery apropos to fish rearing.

One day last winter hatchery attendants discovered a large breeder brook trout had leaped into a pond with small trout. The bandit was netted—and in its stomach attendants found 16 baby trout.

The brown trout always has had the reputation of being a cannibal, but this incident seems to put the brookie on the blacklist too.

But that is as it should be. Fish prey upon each other by the laws of nature, for there is not enough food in any stream to sustain the lives of the fish that would inhabit it if all fish eggs hatched and if all fish reached maturity.

## JEFFERSON CLUB HAS FISH DINNER

The Henderson Township Outdoor Association of Stony Creek, Jefferson county, held their annual fish dinner in the Community Hall on March 25. This dinner was given in observance of Wildlife Restoration Week. Present were 80 guests, sportsmen and Boy Scouts. The dinner was prepared by the sportsmen, and Vice-President John Petrick was chairman of the dinner committee. Boy Scouts of Kramer Troop 76 served the tables.

Splendid addresses were made by Joseph Barkley, prominent north central official of the State Federation of Sportsmen's Clubs, Morris Sherman, Game Supervisor of the division, Archie Haines, president of the North Central Division of Sportsmen's Clubs and Robert Henderson, president of the Jefferson County Sportsmen's Association, writes Amos O. Knarr.

"Your husband looks like a brilliant man. I suppose he knows practically everything."

"Don't fool yourself; he doesn't even suspect anything."

## HOLD TROPHY SHOW

The Parkinson Ferry Rod and Gun Club held their second annual trophy show and wildlife exhibit in the old Monongahela Trust Company building during the week of March 19-25, writes A. L. McVicker, secretary.

The show far surpassed the one held last year both in attendance and in the support given it by local merchants. According to J. P. Rider, president of the club, over 15,000 persons attended the show during the week. Charles A. French, Commissioner of Fisheries, was an interested visitor.

## RECORD SUCKERS

Sweet Arrow Lake in Schuylkill county has produced some outstanding catches of suckers to date this year, but none have equaled the creel taken by veteran 70-year-old Ike Springer, of Beckville, according to Warden Anthony Lech of Cressona.

Springer landed nine suckers during a day's fishing that ranged in length from 17 to 22 inches.

## "WATCH OUR CLUB GROW" DELAWARE SLOGAN

May we take this method of introducing our newly organized organization, the Delaware County Field and Stream Association, to the folds of your magazine? We have held just three meetings and boast the paid membership of 104 members, and expect to reach the 200 mark at our next meeting. With the enthusiasm being shown and activities being participated in, we can guarantee that next year Delaware County will certainly be represented in Harrisburg when the Federation of Sportsmen's Clubs meet, writes William Everman, president.

The officers as elected are William H. Everman, Pres., Norwood; Harry Sauers, Vice-pres., Collingdale; Richard Newman, Sec., Sharon Hill, and Al Deger, Treasurer, Prospect Park.

On May 7, the club is holding its first field day where they will have trap shooting, rifle shooting, archery, bait and fly casting for accuracy and distance, surf casting and other activities, for the enjoyment of its members.

Watch our club grow!



Still fishing for bass at Conowingo dam in the lower Susquehanna River.



## FINAL REPORT ON FISHING CONTEST

The final report of Fishing Contest held by the Harrisburg Hardware Co., Inc., during the season of 1938, for the largest brook, rainbow and brown trout, small mouth bass, large mouth bass, and salmon or wall-eyed pike is, as follows:

### Brook Trout

W. S. Miller, Paxtang, Pa., 14 $\frac{1}{4}$ " long, 1 $\frac{3}{4}$ -lbs., caught near Huntsdale, with minnow, April 16, 1938.

Anthony Lupia, 125 Sylvan Terrace, Harrisburg, Pa., 15 $\frac{3}{4}$ " long, 1 lb. 6oz., caught at Huntsdale, with worm, July 3, 1938.

Ken. Thomas, Harrisburg, Pa., 14" long, 1 lb. 2 oz., caught at Grantville, with Mosquito Fly.

Winner—Anthony Lupia, Silver Loving Cup.

### Brown Trout

F. J. Carson, 208 Kelso Street, Paxtang, Pa., 18" long, 2 lb. 4 oz., caught with minnow, at Falling Springs, April 15, 1938.

W. S. Miller, Paxtang, Pa., 17" long, 2 lb. 4 oz., caught with minnow, Falling Springs, April 16, 1938.

M. Sheaffer, Newville, R. D. 1, 25 $\frac{1}{2}$ " long, 5 lb. 9 oz., caught at Huntsdale, 3" chub, June 15, 1938.

Winner—M. Sheaffer, Silver Loving Cup.

### Rainbow Trout

M. H. Foster, 207 S. Enola Drive, Enola, Pa., 15" long, 1 lb. 7 oz., caught at Big Spring, with minnow, April 16, 1938.

W. S. Miller, Jr., Paxtang, Pa., 16 $\frac{1}{2}$ " long, 1 lb. 12 oz., caught at Falling Springs, with minnow, April 16, 1938.

Erwin Miller, 447 Crescent Street, Harrisburg, Pa., 15 $\frac{1}{2}$ " long, 1 lb. 1 oz., Yellow Breeches Creek, with Fly Plug, May 12, 1938.

Earnest W. Galser, 1983 N. Seventh Street, Harrisburg, Pa., 21 $\frac{1}{2}$ " long, 3 lb. 12 oz., caught at Huntsdale with worm, June 9, 1938.

Winner—Earnest W. Galser, Silver Loving Cup.

### Bass, Large and Small Mouth

Frank Ulrich, 209 E. Emaus Street, Middletown, Pa., Small Mouth, 22" long, 4 lb. 9 oz., Susquehanna River with Plug, July 7, 1938.

J. E. Lower, Market Square, Harrisburg, Pa., Small Mouth 18" long, 3 lb., Juniata River, with Plug, July 6, 1938.

M. L. Wallace, 48 Enola Drive, Enola, Pa., Small Mouth 18 $\frac{1}{2}$ " long, 3 lb. 8 oz., with Helgramite, Conodoguinet Creek, September 12, 1938.

H. B. Kirk, 1902 North Street, Harrisburg, Pa., Small Mouth, 21 $\frac{1}{2}$ " long, 5 lb. 4 oz., with Kingfisher Plug Perch, Marsh Run, Susquehanna River, October 1, 1938.

George Taylor, 222 Reno Street, New Cumberland, Pa., Small Mouth, 20" long 4 lb. 7 oz., with Kingfisher Plug, yellow, Susquehanna River, at New Cumberland, October 10, 1938.

H. A. Cain, 2443 Reel Street, Harrisburg Pa., Large Mouth, 20" long, 5 lb., 21" long, 6 lb. 8 oz., with Chub, Susquehanna River at Goldsboro, Pa., October 9 and 10, 1938.

Louis Oslansky, 333 Poplar Street, Steelton, Pa., Salmon, 26 $\frac{1}{2}$ " long, 3 lb. 9 oz., with Stone Cat Fish, July 13, 1938.



An angling scene at the Spring Creek Project near Bellefonte. This photo was taken last year.

Chester Danner, New Market, Pa., Salmon, 26 $\frac{3}{4}$ " long, 6 lb. 12 oz., with Heddon Plug, 9119P, Susquehanna River, at Hawk Rock, July 18, 1938.

LeRoy Seiders, New Bloomfield, Pa., Salmon, 29" long, 7 lbs. 4 oz., with minnow, Juniata below Newport, October 10, 1938.

Earl Ashenfelter, 220 Market Street, New Cumberland, Pa., Salmon, 28" long, 5 lb., 12 oz., with Heddon River Runt, Red & White, Conowago, York County, October 14, 1938.

Paul Ross, 402 State Street, West Fairview, Pa., Salmon, 27" long, 5 lb. 12 oz., caught with stone cat fish, Oct. 18, 1938.

Elmer Lower, New Cumberland, Pa., Salmon, 27 $\frac{1}{2}$ " long, 7 lb., 12 oz., Caught with River Runt, Red & White, at Yorkhaven Dam, Susquehanna River, October 27, 1938.

### Winners—Bass.

H. A. Cain, Supreme Reel, 6 lbs. 8 oz.

H. B. Kirk, 100-yd. Black Silk Line, 5 lbs. 4 oz.

### Winners—Salmon.

Elmer Lower, Tubular Steel Casting Rod, 7 lb. 12 oz.

LeRoy Seiders, 1 set Bait, 7 lb. 4 oz.



Brook trout water. The Upper Lehigh above Goldsboro, Wayne county.

## MONTGOMERY CLUBS DISCUSS PARK PLANS

Representatives of seven sportsmen's clubs from Norristown, the Perkiomen Valley and the Main Line attended a conference with Montgomery County Commissioners at the Court House on March 27.

Arrangements were discussed for the restocking of streams running through the county's recently acquired 400 acres in Norristown park tract near Green Lane. Members of the various sportsmen's organizations visited the tract April 16.

Plans for the new county park were outlined at the conference by the three commissioners, Frederick C. Peters, Foster C. Hillegass and James W. Potter.

Dams are to be rebuilt, additional trees are to be planted, and a bathing beach is to be arranged along a portion of the lake which will be formed by new water barriers.

Camping privileges will be extended on permit and a trailer camp will be established. Camping parties and trailer visitors will be accorded the privileges of the park, as provided, without a fee.

Members of the various committees and the organizations which they represented at the conference were:

Charles C. Hughes, Norristown, representing the Montgomery County Fish, Game and Forestry Association; Irvin Clemens, Royersford, of the Royersford Rod and Gun Club; Joseph White, Narberth, Lower Merion Rod and Gun Club; Paul G. Hunsberger, Montgomery County Clerk of Courts, Gilbertsville Rod and Gun Club; Forrest Henry, Red Hill, Upper Perkiomen Rod and Gun Club; Russel Meyers, Ardmore, Wissahickon Field and Stream Association; Howard Shallcross, Graterford, Perkiomen Valley Sportsmen's Association, and Merrill Fleming, Royersford, Royersford Hunting and Fishing Club.

Clemens is president of Montgomery County Federation of Sportsmen's Clubs and Shallcross is a former president.



## FISHING BILLS IN ASSEMBLY

Senate Bill No. 160, containing general amendments to the Fish Code was still "in committee," on April 7, but will no doubt be reported out in the near future. Letters have been received from the various groups endorsing this bill and assuring us of their support.

Bills introduced since our last report affecting the Fish Commission are as follows:

### HOUSE BILLS

No. 510 This is a bill introduced by Rep. Alspach, Lancaster County, amending Section 12 of the Act of May 2, 1925, permitting the use of goldfish for bait providing they are not of a red or gold color. The present law prohibits the use of goldfish and this amendment will allow them to be used if they are not the colored species.

No. 511 This is a bill introduced by Rep. Krise, Clearfield County, amending Section 310 of the Act of June 22, 1937, known as the "Purity of Waters Act." Under the amendment clay mines will be exempted. If this should become a law, the section would read as follows:

"The provisions of this article shall not apply to acid mine drainage and silt from Coal or clay mines until such time as in the opinion of the Sanitary Water Board practical means for the removal of the polluting properties of such drainage shall become known."

No. 569 This is a bill introduced by Rep. Reagan, Union County, setting forth that owing to the high cost of food, etc., living expenses of our citizens can be reduced if they are permitted to catch fish with outlines, set lines, etc. If enacted into a law, would permit the devices during the months of June, July and August, 1939 and 1940, excepting in trout streams.

No. 570 This is a bill introduced by Rep. Reagan, Union County, amending Sections 220 and 225 of the Act of May 2, 1925. If enacted into a law, the various county treasurers would be given authority to appoint the various issuing agents for the issuing of fishing licenses.

### SENATE BILLS

No. 206 This bill has been reported "out of committee" and is now before the Senate. It provides that all applications for licenses should be accompanied by a per capita school tax receipt for the last calendar year. This section reads as follows:

"No license or permit shall be issued or granted by any department, agency, board or commission of the Commonwealth to any person over twenty-two years of age unless the application for such license or permit shall be accompanied by a per capita school tax receipt for the last calendar year preceding the year in which the application is made issued in the name of the applicant."



Nearly 1300 sportsmen and guests attended the annual banquet in March of the Lawrence County Sportsman Association, held in the Scottish Rite Cathedral dining room at New Castle. The association now has a membership of 1500 as compared to a membership of 450 last year. Featured was a fine program of addresses by Hon. Ross L. Leffler, Game Commission member, Hon. C. A. French, Commissioner of Fisheries, Merrill C. Merritts, vice president of the Pennsylvania Federation of Sportsmen's Clubs, C. W. Wessell, in charge of Game Propagation, Game Commission, Hon. Robert Lamberton, Game Commission Member, Roger W. Rowland, state Secretary of Property and Supplies, John Mock and Chet Smith of the Pittsburgh Press, and others. General chairman for the event was W. Henry Rodgers and Robert Wallace, for the 16th year, served as toastmaster for the club at its annual dinner.

## TO STAGE DRIVE ON WATERSNAKES

War on water snakes was declared at a meeting of the Coopersdale Horseshoe Hunting and Fishing Club. The members voted unanimously to take concerted action against the reptiles that feed heavily upon trout stocked by the Fish Commission. By their action the Coopersdale sportsmen hope to save thousands of speckled beauties in the streams and call upon the members of other sportsmen's clubs throughout Cambria and adjacent counties to join in the campaign to control the worst natural enemy to fish life.

## TO DISTRIBUTE FISH IF DAM IS DRAINED

Angling resorts in many parts of Berks County are likely to benefit if the Angelica Dam, location of a new municipal bathing beach for Reading, must be drained to permit engineers to work on the beach project.

Fish to be taken from the dam will be distributed to the Maiden Creek, the Manatawny and other streams, Councilman Howard McDonough said. The juvenile fishing pond at Bernharts; the Ontelaunee reservoir, Lake Antietam and other bodies of water will receive a quota of the fish in the Angelica, if it is emptied.

## ELECT OFFICERS

Officers for the coming year were elected by the Monessen Sportsmen's Association as follows: John Raution, president; Richard Schilling, vice president; Rinard Woods, secretary, and Irvin Hagerty, treasurer.

Ross L. Leffler, member of the Game Commission, was the main speaker at the association's banquet on April 18.

## CHILDREN PLANT TREES IN LEHIGH

Boys and girls of Central Junior High School Conservation club were to help members of the Pioneer Fish and Game Association of Allentown in planting 4,000 tree seedlings Saturday, March 25, on the farm of William George, Heidelberg township, one mile north of the Golden Key hotel on Route 22.

Previous projects included 1,000 seedlings on the farm of Mrs. Hassler, near Seipstown; 4,000 seedlings along a ravine in Mohr's orchard located on Route 22, north of Fogelsville; 5,000 seedlings on the farm of Thomas Irvin, Lowhill township, and 1,000 white and red pine seedlings on the farm of Henry A. Soltys, Upper Saucon township.

The reforestation committee of the association, Leo Bateman, chairman, estimated that to reforest the untillable hillsides of the Jordan water shed alone would require 5,000,000 trees.

The future benefits of such projects are innumerable, conservation of water in the soil thus preventing floods and droughts, erosion of top soil and, last but not least, a much needed timber crop for future generations.

The planting crews consist of two boys and one adult supervisor. Each crew is supplied with one bucket in which they carry their quota of 400 trees and one mattock. This arrangement guarantees that each boy plant his quota. The adult supervisor follows each crew inspecting each tree for thorough tamping of soil and straightness. The trees are set on 6 feet centers, this requires approximately 1,200 trees per acre.

Each boy is furnished a copy of Circular 31, "Forest Trees to Plant in Pennsylvania."



## CLINTON ANGLERS LANDED SUCKERS

Sucker fishing whiled away otherwise bore-some days in the lives of many Clinton county anglers and from here and there came reports of fine catches. Most of the enthusiasts persist in keeping tight lips, however, when information is sought as to the whereabouts of their favorite haunts.

Fred Peters bears all the earmarks of being one of the best, reporting more than 50 suckers within a short time and challenges anyone to duplicate the amount in any given time.

Anyway, he tells a story of fishing with three other local anglers of fair repute near the Fishing Creek dam above the axe factory site. He pulled in seven in two hours while the percentage of his companions were point zero.

Others claiming a certain amount of success are John Weaver who got a four-pounder, Eddie Fry, and Jim Smith.

## TROUT SEASON BANNER DISPLAY

At the opening of the Christmas season each year it is not an uncommon sight to see a banner on display in store windows, "25 Shopping Days 'Till Christmas," but "Mo" Banker, the Huntingdon druggist, has added a new wrinkle to the banner business this year.

Alongside the large mirror, in front of the soda fountain, he had a banner this year which read, "21 Days 'Til Trout Season."

The banner, says Druggist Banker, was intended to work up added enthusiasm among the sportsmen, so that when April 15 arrived, they would not start hunting for the fishing rods, the hooks, lines, sinkers, basket, boots, coat, cap, a copy of the fish laws, etc., but would have all the paraphernalia in one spot, ready to start out in quest of the speckled beauties.

## INDIANA SPORTSMEN SPONSOR CONTEST

The Indiana County Fish and Game Association is sponsoring a contest for membership and for the largest trout caught of the three species in Indiana County.

Prizes are to be given to members of association or members of clubs affiliated with the association.

The contest opens April 15 and ends July 1. Fish should be registered at one of the following places:

Barclay Hardware Co., King Auto & Radio Supply Co., Indiana Hardware Co., Buchman's (at the railroad), Brown's Boot Shop, J. M. Stewart Co., Stahura's Market, J. Arthur Robinson, and The Committee.

The Committee—Earl Long, Jack Ness, A. J. Stahura and H. W. McConn—will do the checking and distribute prizes at the July meeting.

The prizes will be distributed as follows:

First Prize—"Silver Cup"—Indiana Hardware Co.—For the longest trout caught.

Brook Trout—First prize, antibacklash reel, Barclay Hardware Co.; second prize, fishing trousers, Buchman's (at railroad).

Brown Trout—First prize, \$10 fly rod or casting rod, King Auto & Radio Supply Co.; second prize, creel, The Committee.

Rainbow Trout—First prize, automatic reel, King Auto & Radio Supply Co.; second prize, fly line, Arthur Robinson.

Four boys or girls 16 years or under—Longest trout of any species—rifle, Indiana Hardware Co.

For the largest number of membership—First prize, automatic reel, J. M. Stewart Co.; second prize, pair of hightop fishing boots, Brown's Boot Shop.

Special prize—For the largest number of water snakes; register the tails.—12 lb. ham, Stahura Market.

Prizes on display at McConn's.

## MOYER SPEAKER AT LANCASTER DINNER

Gabriel H. Moyer, of Lebanon, gave an interesting talk to about 100 persons who attended the annual banquet of the Lancaster County Sportsmen's Association in observance of National Wildlife Week held in the United Spanish American War Veterans Home, at 141 South Queen Street.

The talk which was quite humorous from start to finish also was filled with personal anecdotes and the speaker in a well rounded manner brought out the fact such an organization can do much towards the preservation of Wildlife.

The main speaker was introduced by Richard S. Sullenberger, chairman of the banquet committee, who also presented Frank C. Edminster, of the Soil Conservation Service and Norman Garber, Regional Director of the Eastern Zone. These speakers stressed the activities of soil conservation and its relation to the sportsmen and wildlife.

The program got underway after the group indulged in a turkey dinner with all its fixings and President Harry Harsh gave a short address of welcome and introduced Secretary J. A. Norris and Treasurer, M. G. Dietrich, who with Richard S. Sullenberger served as the banquet committee in charge of the arrangements.

Others called upon for brief remarks included: William Kopp, of the Lancaster County Fish and Game Association; Elmer Bomberger, President and Abram Hershey, Secretary, both of the Lititz Sportsmen's Association; Allen Wiker, President of the Federated Sportsmen of Lancaster County; Fish Protector Horace Pyle and Game Protector John M. Haverstick.

An interesting moving picture on "Let's Go Fishing," was shown as well as several shorts.

Prizes donated by members and local merchants totalling \$70 were awarded to the following persons:

Clarence Glackin, E. L. Fenstermacher, Rudy G. Hess, Abram Hershey, Frank Diehm, Clifford Artz, John Wagner, Elmer Klaus, Joseph Buck, J. W. Schook, J. Kenneth Wilt, Ray Geib, Martin W. Wolf, Phares Binkley and Joseph Hess.

M. G. Dietrich, J. Nelson Millhouse, John J. Millhouse, H. E. Harsh, Claude Ryan, Ross Barley, Herbert Pontz, E. A. Shreiner, Norman Garber, D. B. Wise, Samuel C. Roth, M. B. Hess, George Kunkle, W. O. Hershey and Garvin Ross.

Harry Witmer, W. P. Henschel, Robert Diehm, Fred Olsen, Grace Zell, Edgar Schmook, H. A. Fox, G. W. Millhouse, W. B. Wisner and Walter Boohar.

## LUZERNE CLUBS AT BIG MEETING

A largely attended meeting of the Luzerne County Federation of Sportsmen's Clubs was held at the Frank Fisher Hotel, at Alberts Corners.

Distribution of fish to the various streams of the county was discussed at length and the organization went on record as being in favor of removing the skunk from the protected list.

The unit also voted to support the petition of the Lower Luzerne Federation calling for amendments to the present groundhog law.



Packing brook trout eggs for shipment at Pleasant Mount hatchery, Wayne county.



## WOULD HAVE ANGLERS REPORT VIOLATIONS

The County Federation of Sportsmen's Clubs in Clearfield county is asking sportsmen to report any instances of illegal preseason fishing that come to their attention.

"Word was received that this despicable, lawless practice went on last year," said a spokesman, "and this year a concerted, constant watch will be maintained night and day, and any person caught fishing or in possession of trout, regardless of size, will be prosecuted to the fullest extent."

Several thousand hatchery trout were placed in 11 streams of the county in preparation for the season opening on April 15.

The Irvona club is to be congratulated on the splendid cooperation it gave the committee in charge of the testimonial dinner for G. A. Stewart, having sold more tickets than any other club in the county.

The dinner not only marked a successful milestone in county sportsmen's activities but the committee's financial report shows a favorable balance after paying all expenses.

## SUCKER CATCHES

Sucker fishing was very good early in April and provided some real nice catches in the Conewago Creek near Falmouth. Tom and Bill McLawee, Lebanon, caught 9 suckers, averaging 2 pounds a piece and 6 catfish.

Sam Rutherford, of Bainbridge, made a record catch of 6 suckers weighing over 3 pounds and 2 weighing over 4 pounds.

John Krodell, Middletown, caught 5 suckers averaging from 2 to 2½ pounds apiece and one 7 pound carp.

Warden Frank Sanda believes that a few warm days should improve fishing a great deal for warm water fish.



Felix Barchock reports that French Creek near Knauertown, Chester county, harbors many watersnakes.

## TIOGA SPORTSMEN ORGANIZE CLUB

The sportsmen of Gaines and Watrous have organized a Sportsmen Club, named the "Pine Creek Sportsmen's Club." Jack Austin was elected president; Ray Schoonover, vice-president; Dale Smith, secretary and Lester Prouty, treasurer.

The membership now totals 65. The goal was 150 members by April 15th.

The club members requested 350 day-old pheasant chicks from the Game Commission, to be raised from 6 weeks to 2 months old. The young birds are to be released in this vicinity.

1st Rah Rah: "She's pretty as a picture."

2nd Rah Rah: "Yeah, nice frame, too."

## SAVE OUR FISH

Writes N. B. Sutton of Coraopolis:

Not bragging, but I fish the Pennsylvania and Ohio waters from April to November. I try to educate through conversation the people I meet on the streams in conservation. I see harmful practices galore and my blood runs cold on seeing lots of things that are done without thought or in ignorance. The outstanding one is, with all alike, the releasing of undersize fish that are caught.

"There should be a law" requiring all fishermen to carry a small pair of scissors to snip the snell or line close to the mouth of undersize fish. Here is how it may be done. The fish may be brought to hand with the reel. Take hold of the line one foot from the fish, bring fish to the surface without touching it with the hand and snip off the line at the mouth of the fish. It will probably then live as it was never touched with the hand or taken out of the water. If you try the same thing with a knife, it becomes very awkward and nine times out of ten you must handle your fish.

## PLANT WILLOWS

Montgomery county sportsmen's associations are alert to the need for more shore cover on their streams, both to furnish shade and serve as an aid against erosion, writes Warden Harry Z. Cole, of Norristown.

"I just finished distributing 10,750 French willow cuttings among the clubs of my district. These shoots will be planted along stream banks."

A vital factor in the drive for better shore cover in the county has been the splendid cooperation of Adolph Muller, former member of the Game Commission, through the DeKalb nurseries.

Cole also reports heavy catches of suckers in the Neshaminy Creek, at Chain Bridge. Four fishermen, he writes, took 56 suckers at this spot on morning of March 19.



The Wages of Metamorphosis is Death.

Although successful in casting off most of its nymphal skin, the dragonfly was unable to extricate its head from the rigid mask. The result was starvation.



## THIS MODERN TROUT FISHING

(Continued from Page 7)

watersnakes destroyed during 1938 would have killed that year 79,300 fish.

"Of the total number of watersnakes destroyed last year, approximately 800 were killed in or adjacent to trout waters. The balance, or 786 snakes, were killed in or adjacent to waters inhabited by other game fish. Now, it is very likely that a watersnake in trout waters will kill 10 trout and 40 other fish during the period of one year; therefore, by causing the removal of 800 watersnakes from our trout waters, we feel justified in making the claim that we have saved 8,000 trout and 32,000 other fish in those waters. In waters inhabited by other game fish, we will assume that a watersnake will kill five small bass or pike and 45 other fish during a year. By causing the removal of 786 watersnakes from these waters, we feel justified in making the claim that we have saved 3,390 bass and pike and 35,370 other fish in those waters. We may be wrong in claiming that we have saved more than 79,000 fish. Our estimate may be high, and, on the other hand, it may be low, but we give you some food for thought".

The interest being taken by organized sportsmen in the present day conservation movement is one of the most encouraging omens for improved fishing. There is definite reason to believe that increasing numbers of our fishermen are discarding the "full creel" idea and adopting instead the slogan "Fish for Sport and a Sportsman's Creel". As this crusade of sportsmanship gains headway, the chances of the average fisherman for a day's good trout fishing around the middle of the season increase proportionally. An ideal to build to would be some future date when the vast majority of our fishermen discard the legal limit idea and set their own personal limits, governed by their immediate need, in most instances well below the daily catch permitted under the Fish Law.

The Game Commission, through its system of primary, secondary and auxiliary refuges and controlled shooting grounds, has carried forward its program with phenomenal success in recent years. Pennsylvania gunners, with comparatively few exceptions, have respected the "strand of wire" about these refuges, realiz-



Photo by W. A. August  
Three of four giant snapping turtles killed at Little Mud Pond, Pike county, by Al Snyder, Allentown. The largest turtle weighed 50 pounds. Predator control counts.

ing that in so doing they were insuring their future sport through the saving of valuable seed stock. All of which gives us pause for thought. Would it be possible to establish on some of our trout and bass waters fish refuges, properly posted, to serve a similar purpose? We know that the strict regulations governing fishing at the Commission's highly popular "Paradise" on Spring Creek, Centre county, have been, with few exceptions, complied with in a most commendable manner by the anglers who find sport at the Project. With proper publicity in bringing home the fact that such water areas were being set aside for the benefit of the individual fisherman and others who find sport on his pet water, there is reason to believe that these sanctuaries would be universally respected. The ultimate benefit of trial water areas of this type could only be determined after periods of from five to 10

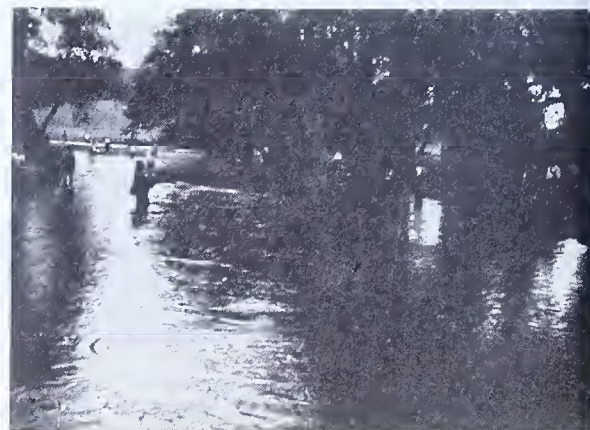
years and would, of necessity, bear directly on improvement of fishing in streams where tried.

Finally, the fishing public must come to realize that one of the most pressing threats to the future of the angling sport on Pennsylvania's intensively fished waters is that of land posting and the acquisition of fishing waters by private interests. Already, in the Poconos, many sections of fine trout waters are posted against fishing. The Monroe-Pike Sportsmen's Association, through its splendid good-will campaign, has won the cooperation of many farmers in the district with the result that many more miles of trout waters have been made available to the fishermen. These good-will campaigns, being conducted by organized sportsmen in many sections, are molded with the idea of bringing better feeling and understanding into the farmer-sportsman relationship. That this movement is one of the most vital in the present-day fishing picture, few sportsmen would deny. With the rapidly increasing number of anglers, every foot of available fishing streams is needed, and a cordial feeling between landowners and sportsmen is the need of the hour.

In this somewhat rambling discussion, we have attempted to outline some of the problems facing the fisherman of today. The ANGLER will welcome for publication views of its readers concerning present day fishing. Tight lines.



Ready to strip adult rainbow trout of their eggs and milt at the Bellefonte hatchery.



Another fishing scene on the Little Lehigh.









## HERE <sup>AND</sup> THERE IN ANGLERDOM



Writes Shirley C. Hulse of Bedford: "The other evening I picked up on the highway a broken-necked opossum that had 11 tiny offspring in her pouch, all quite dead of course but still clinging each to its source of food supply. *Why* do so many drivers try to hit things—they ought to have to buy a hunting license along with one to drive. Incidentally, mamma possum's tummy fur is going into some nice fish fly bodies—I am doing that much to keep her from being entirely wasted."

Cold weather definitely retarded sucker fishing in the North Tier counties of Potter and Tioga during early spring, according to word received from Warden Leland Cloos of Middlebury Center. Lack of warm rains and not as many suckers in the streams as usual he gives as contributing causes for the light catches of small fish. Only about six good days of sucker fishing weather is the word that comes down the line.

Trout fishermen in Clearfield county believe in giving stocked trout a sporting chance through not fishing in their trout waters before opening day of the season, according to a fine report received from J. F. Livingston, ardent angler from Clearfield. "J. B. Fleming and I were on Lick Run all afternoon on April 3," he writes. "We covered about seven miles of stream and did not see anyone."

Ice-fishing for pickerel has produced many arguments, pro and con, one of the most familiar being that during the ice-fishing period, mostly female fish are taken. Chas. J. Lewis of Briar Creek comes along with a report that while fishing at Beaver Dam one day in January, 1938, three fishermen caught 14 pickerel. In cleaning these fish, writes Lewis, he found that only two of the total catch were female fish.



John Nixon, Philipsburg, with a 21 inch brown trout taken on flyrod in Six Mile Run, Centre county, last year.

Living in the back country of Canada is J. Clive Briand, young Irish-Canadian, who sometime ago wrote the following letter to Phil Platt of Wallingford: "I wonder would you be in a position to forward me a few old hunting and fishing magazines. I found your name and address in the Isaac Walton League of America and would also like to swap a few friendly letters with you if you will only honor me with your friendship. I am an Irish-Canadian young fellow 24 years old, living all alone on a small farm in a very lonely backwoods settlement following the recent death of my good parents and I find the time sad and dreary, so you will be doing a real work of mercy by sending me something to read." Clive's address, ANGLER readers, should you have any old sporting magazines to send him, is Douglastown, Gaspé Co., Quebec, Canada.

Trout fishermen go out in large numbers from Mount Carmel every season, but that Northumberland county borough still retains its rank as the "carp fishing capitol in Pennsylvania." Some interesting data on carp fishing has been gathered by Peter Patricoski, a dean in the carp fishing fraternity in the town. Of carp catches made during the spring last year, he writes, 60% were registered with that old favorite bait, the doughball.

In direct contrast to this finding is the following made by Frank V. Stutsman of Twin Lakes, Pike county. By checking up on catches of pickerel made while ice fishing, he found that season takes were as follows: (1) All females; (2) one male, 6 females; (3) two males, 8 females; (4) two males, 10 females; (5) and (6) all females. The final result he writes, showed that of the entire catch checked, 80% were female pickerel and that virtually 100% of yellow perch taken while ice fishing were female fish.

To the willow planting campaign under way this year, add another type of planting to beautify fishing waters, planting with water lilies. Writes Warden Dean R. Davis, Punxsutawney, Jefferson county: "Through the splendid cooperation of the Fish Commission and the National Youth Administration, we were able to secure a project known as 'lily planting' on Little Mahoning Creek, Canoe and East Mahoning townships in Indiana county. During the fall of 1937, I lifted from various old sloughs and transplanted a number of lilies, establishing several nice beds.

"Last autumn we planted a total of 930, reinforcing some of the beds and planting a great number of new places. Realizing the great benefit that the stream, fish life and fish food derive from plant life, we believe this should be a very worthy project."

One of the most venerable weeping willow trees in the state, according to Harry Weber, Fish Commissioner from Philipsburg, who is intensely interested in and backing the willow planting campaign this spring in Pennsylvania, is the one on the campus of Pennsylvania State College. This tree, he says, was planted in 1858 by William G. Waring. It was restored in 1911 by students in landscape gardening at Penn State. The original slip was taken from a tree planted by William Penn in Philadelphia.



Frank Krebs, Jr., Philadelphia, landed this 22 inch 4 pounds 12 ounces rainbow trout, in the Wissahickon last season. Lure used, artificial caddis nymph.



# *Lines To A Fly Tyer*

By EDDY THOMPSON (his wife)

This is the plaint of the wife of the fly tyer,  
Angler and sportsman, Waltonian liar;  
His den is be-littered with feathers and stuff,  
Forever I'm picking up bucktail and fluff;  
Hats are not safe, for this relentless cadger  
Searches them all for a good piece of badger;  
My very best saucepans are now used for dyeing  
That elusive hackle for which he's e'er prying;  
The blue dun, the Cahill, he ties them up fast,  
His talk is redundant with "takes" of the past;  
His leisure is spent with these elegant flies,  
From dinner 'til bedtime he ties and he ties;  
He drops them in fishbowls to see how they'll ride,  
I mourn for the goldfish now—(seven have died).  
We used to converse of this and that book,  
Now all he's concerned with is size of the hook;  
He once bought a live duck to loot it for hackle,  
The necks that I dust 'round have long lost their cackle:  
Each drawer is all labelled for "these, those and them,"  
But if anything's lost, then it's "cherchez la femme;"  
He's a fresh water fisherman—heaven forbid  
That he'd ever embark in pursuit of the squid!  
What's more, this bug that has bitten him hard  
Has gotten me, too, and so we're both tarred  
With the same brush (or feather)—and now what I'm wishin's  
For maids to clean after him—while I go a-fishin'!



BROTHER ANGLER—



FOREST

FIRES

FINISH

FISHING



# PENNSYLVANIA ANGLER



ANNUAL BASS NUMBER



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## PENNSYLVANIA'S GOVERNOR GOES A-TROUTING



In answer to that irresistible call of fast water, light fly rod arched to the gamy fight of brook, brown and rainbow trout, and the comradeship of fellow fishermen, Governor Arthur H. James headed a vast army of anglers who invaded trout waters of the Commonwealth on opening day of the season, April 15. A veteran fisherman, the Governor feels at his angling best when wearing his old favorite fishing hat and togs. On this occasion, he caught a fine creel of trout, fishing in a stream near his home at Plymouth.

Pennsylvania's No. 1 fisherman is shown (upper right) discussing the day's sport with two angling comrades on the opening day. In the group, left to right, are Judge John E. Foster Heller, President Judge of Orphans' Court, Luzerne County, Governor James and Dr. Ivor Griffith, Dean of Pharmacy, Philadelphia College of Pharmacy.



# FLY AND SPINNER FISHING FOR BASS

By CHAS. M. WETZEL

ONE OF the most successful methods of catching bass is with the fly and spinner. This combination is most effective in shallow water not over five feet deep, and the ideal time is early morning and late evening. My preference is for late evening, and invariably my best catches are made after nightfall. This is the time when bass grow bold and venture out in the shallow water in search of food.

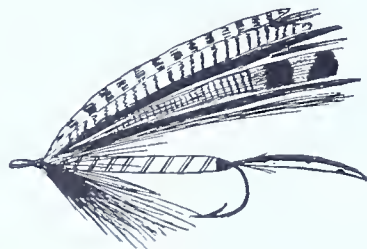
No one knows when fishing is at its best, we can only offer speculation. Books have been written on the subject; some claim that the moon and tides influence it considerably, but my theory is, that good fishing hinges and revolves about light and shadows. Looking back over a life time spent in fishing, my best times were usually in the evenings, on cloudy days, and in shady spots obscured by the sun.

The reason for this, is, THAT UNDER THE PROTECTIVE COVER OF SHADE AND DARKNESS, ALL UNDERWATER FORMS COME TO LIFE AND START FORAGING ABOUT—ONE PREYING UPON THE OTHER.

Suppose, for instance, we pick up a stone on the stream bed. When we turn it over, nymphs and helgramites start scurrying for the underside, away from the light. They are afraid of it, and remain hidden,—yet knowing how fond bass are of them, it is logical to assume that in the evening, when the surrounding water is dark, they grow hungry and start foraging about, looking for food. Knowing this only too well, bass also start cruising about, looking for an easy meal. Let me remind you of another analogy—the stone catfish. Years

## THE FRONT COVER

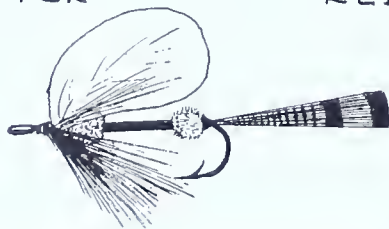
*The ANGLER is always proud to present the splendid fish paintings by Fred Everett, nationally famous nature artist, on the front cover. In his painting for this month, we feel that he has accomplished an exceptionally fine piece of work, a bass painting that should prove helpful to our readers in distinguishing differences between the largemouth and smallmouth bass. Of the two bass rising to the surface, the one on the left is a largemouth, that on the right a smallmouth.*



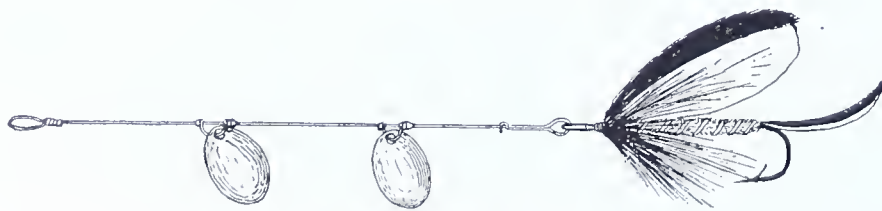
SILVER DOCTOR



RED IBIS



ROYAL COACHMAN



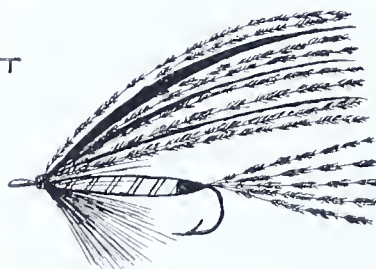
SPINNER AND PARMECHENE BELLE



BLACK GNAT



MONTREAL



ALEXANDRA

ago when it was legal to spear, or gig suckers and eels at night, the stream bed was literally alive with these small fish. In the daytime—except during muddy water—it was impossible to catch any of them, except by raking up the stream bed or by stunning them with an iron bar, a practice happily no longer legal. Crayfish, minnows, helgramites, stone catfish, and bass bugs or dragon fly nymphs, comprise the principal diet of the bass, and with the exception of the minnows, all of them do their foraging in dark waters.

Many other instances could be related, all of which seemingly explain or suggest a plausible reason why fishing is best in the shadowy places. Bass congregate there, usually in some hidden shady retreat—a spot where they can dart out and snatch any luckless underwater forms that have ventured out under the protective mantle of darkness. An appropriate example of such retreats, are the larger rocks, under which small mouth bass are invariably found. Study and observation, go a long way in fishing, and, in time, the angler develops, more or less, a sixth sense, whereby a cursory glance at the water will indicate to him the localities where fish should be found.

Now in fishing the fly and spinner, concentrate on the dark and shady places. Work thoroughly the big rocks around the riffles and by all means avoid creating any disturbance which might alarm the bass.

Cast the fly and spinner, reach forward with the left hand and grasp the line, then retrieve the lure by raising the rod towards the vertical. When near this position, lower the rod to the horizontal, then reach forward and strip in line which is held in coils in the left hand. Again start retrieving the lure, and keep repeating the procedure until it has traveled immediately in front of you.

The method of working the fly through the water should be varied; at times retrieve it in a steady unbroken pull, then again, in a series of short jerks. Above all things, keep it working fast enough, so that the spinner blades are kept continuously revolving.

As soon as a strike is felt, set the hook with a short upward jerk. If the bass is determined to run, let him go, but keep a tight pressure on him all the while. Wear down his resistance



but never try to "horse him in." If the bass should break water, quickly strip in line, and turn the fish over before he has an opportunity to thrash about and shake the lure. Bass are noted for their acrobatic leaping and water breaking tactics, but this is often influenced and aggravated by the manner in which the fish is played—that is, too close to the top of the water.

A few years ago on the French River—one of Canada's famed bass and muskie waters—our guide, Harvey Schell, demonstrated just how easy it was to make a fish leap. He could do it with any of them, some breaking water as many as eight times before being brought in. To prove that this activity was entirely man-inspired, he then varied the procedure and brought fish after fish to net, none of them even breaking water once.

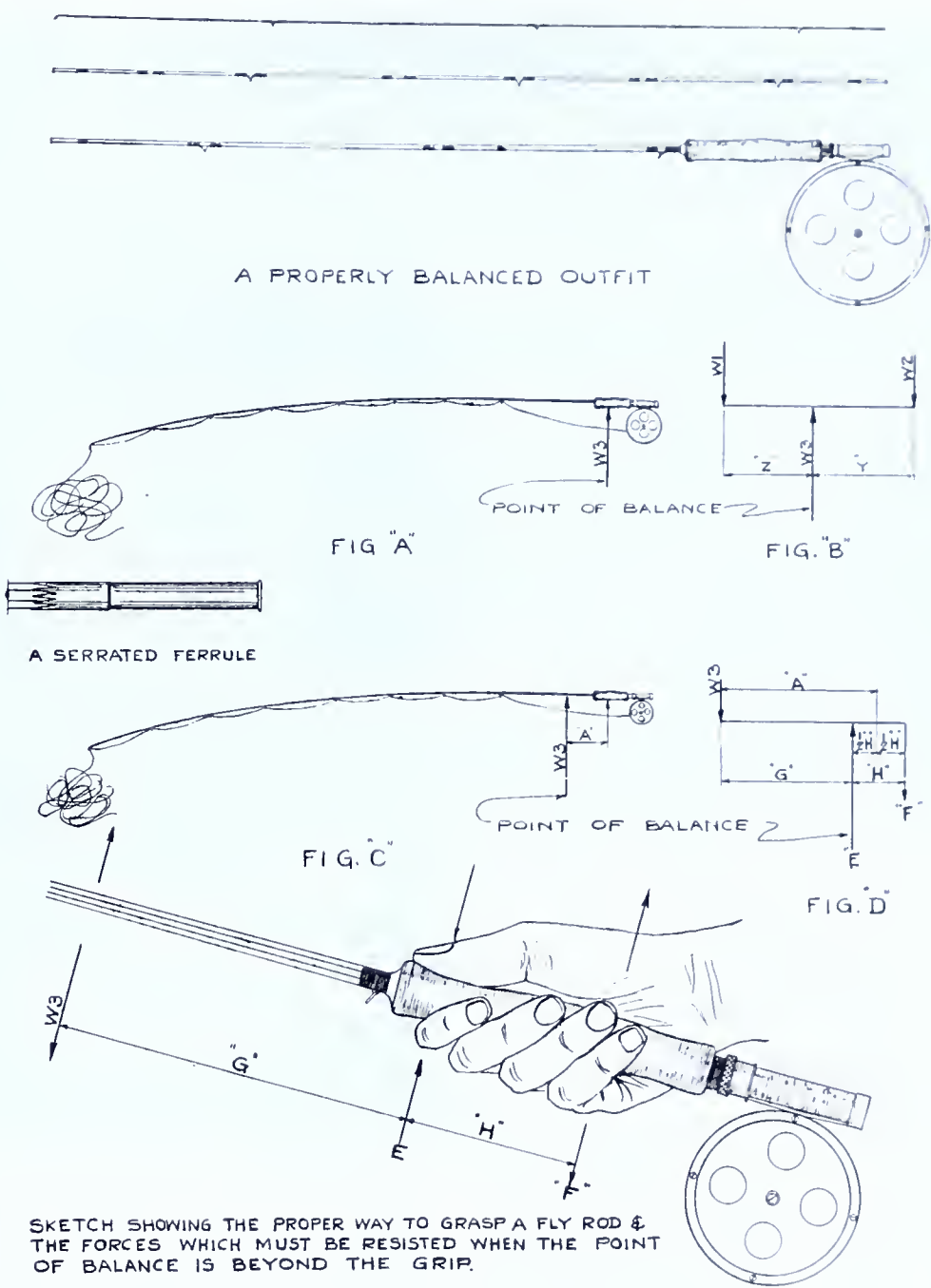
The flies used in bass fishing should be tied on fairly large hooks, No. 1 or No. 1-O, and the gaudier they are, the more successful they seem to be. The Parmechene Bell, Silver Doctor, Red Ibis, Royal Coachman, Montreal, Alexandra, and Black Gnat are all good, but my preference is for the Parmechene Bell. Select flies with plenty of red in them, since bass seem sensitive to this color. Something about it seems to goad them into striking.

Spinners should be of the double bladed variety, in both the nickle and brass finish. For dark water I prefer the nickel plated type, but this is a matter of individual preference. The important part is that the blades should revolve easily and smoothly. Double spinners are superior to the single type, in that they cause more commotion in the water, and are therefore more liable to attract the fish; in fact, three blades would probably be better yet. In fishing lake trout, I have often used what is called a "flasher spoon," that is, a large number of these blades are mounted, one above the other on a wire, and its success apparently hinges on the great amount of water churned up. For bass fishing, the size of spinners will be governed more or less by the stiffness of the flyrod, numbers 0 and 1, being commonly employed. The larger size should never be used on rods weighing less than five ounces, for they simply will not take it. In no time at all, they develop a permanent set, which can never be satisfactorily removed.

The leader should be at least six feet long, and a level fly line will prove entirely satisfactory.

The rod used in fly and spinner fishing should be around nine feet long, and weighing in the neighborhood of 5½ to 6 ounces. Serrated ferrules and large diameter guides are most important. Serrated ferrules are saw toothed at the ends which are attached to the rod. At this point there is quite a strain, and with the ferrules notched as shown in the sketch, this weak point is relieved, since the bending moment is gradually absorbed. That the rod takes an awful beating at these points can be seen after a season's use; first, the varnish starts cracking, and after that it is only a matter of time until the windings break.

Large diameter guides are most important, since they facilitate shooting the line to a remarkable degree. If the rod is manufactured to your requirements, insist on having guides at least two sizes larger than those ordinarily provided. Among the biggest eyesores on our modern rods are the small diameter guides which the manufacturer, year after year, keeps providing. Frankly, they are absolutely worth-



less, and should be immediately removed and replaced with those of a much larger diameter.

In casting the fly and spinner, the hand is subjected to a rather great strain which, to a certain extent, can be alleviated, if the rod and reel are correctly proportioned.

My advice is to buy a reel that will cause the least exertion in casting; and by that I do not mean the smallest one, but rather the opposite. Get a heavy, large diameter, single action salmon reel, and you will find that casting becomes much less tiring. I realize that I am in for considerable criticism by this statement, yet it is backed by the soundest principles of structural mechanics. In this matter of balance, the reel plays an important part, especially on the fly rod of today.

Frankly, I believe that the design of the modern fly rod could be improved by increasing the distance from the grip to the reel. Allow me to illustrate the point.

Suppose, for instance, that the rod balances exactly at the grip, see fig. A. When we pick it up, we hardly notice its weight, for the rod rocks lightly back and forth in the hand without the least bit of strain, simply because it is balanced at the proper place. This is the ideal condition, but it is seldom encountered.

To get the rod in balance, we must have an equal bending moment on each side of the

fulcrum. Let the weight of the line, and that part of the rod to the left of the fulcrum, be designated by W1. The weight of the reel etc. on the right of the fulcrum, we will call W2. Let Z and Y, indicate the distance from the fulcrum to the center of gravity of these weights. The bending moment on the left of the fulcrum is equally to W1 times Z; and the moment on the right side, equals W2 times Y. Obviously these bending moments must be equal, or the rod would tip over to one side. Balance then depends on weights and distances, on each side of the fulcrum. If the distance Y, from the grip to the reel should be increased, naturally W2, or the weight of the reel would not need be so heavy; this is what I meant, when I said that the design of the modern rod could be improved.

Now let us take the usual rod and reel. Nine times out of ten, it will balance at some distance, A, beyond the grip, as shown in fig. C. The effect of this will be to cause a strain on the hand, which in turn is transmitted to the wrist. Let me explain.

In fig. "C", W3, is the balancing point, or the center of gravity of the weight of the rod, reel and line. We now pick up the rod at the grip—the usual place for holding it, and we see that it no longer rocks easily back and forth in the



# PISCATORIAL PLAQUES

## An expository article on the construction of fish plaques for den decoration

By JOS. F. MARCHETTI

**T**HE keen desire of most anglers to prolong and enjoy the successful incident of luring a sizeable fish to net is manifest in repeated intentions to have the next one mounted. But time and trouble preparing a specimen for professional service plus the cost are the chief obstacles to fulfillment of every fisherman's fondest pipe dreams—a den chock-full of souvenirs, attesting to his skill with rod and line. The sportsman's most cherished keep-sakes are those of a personal nature; those linked with ne'er-to-be-forgotten days in quest of fish and game. The only satisfactory way to keep such memories fresh and vivid is by the preservation of trophies in realistic, colorful forms. Reminiscing, in company with one's souvenirs, is a pleasure second only to the actual experience.

As for attempting to set up a prize catch himself, the piscator is balked by his best known characteristic—an elastic imagination. Though the lucky fellow would like very much to make permanent an unusual trophy, he imagines the task too difficult. That he might possibly copy the beauty, form and color of nature's finny creatures is beyond his fondest hopes. A review of the suggested methods and materials already in type, however, shows a series of processes difficult enough to curb most any angler's creative impulses toward such an undertaking. These several ways of preparing a fish for display are really too intricate and elaborate for the average craftsman and result, more often than not, in the loss of trophy, time and money. This reference applies to plaster casting; also, the more delicate problem of filling a skin with one kind of stuffing or another, while carving the model from wood is extremely hard and laborious. Whether of plaster, stuffing or wood, the appearance of such a model often looks much too stiff and inanimate in contrast to the dynamic action associated with game fish.

After extensive study and practice with these varied media, a totally different process was hit upon, which, in a very short time, proved itself not only superior but more easily manipulated and within the ability of the least talented to produce striking results from the very start. With practice, the material lends itself well to the creation of individual and realistic fish plaques. Modelling is the process and paper pulp the medium. Aside from the purchase of several tubes of paint, the expenses are nil.

Let us assume that when next time you drop a fly alongside the white water of your favorite fishing hole—that monster, so long anticipated but never realized, suddenly capitulates. As easy as that, and you have the most necessary item to begin activity on the construction of a piscatorial plaque which will go far toward enhancing the beauty and sporty atmosphere of your den.

First, set aside your catch; do not eat him—yet! Now, tear several issues of the daily paper into small bits, the smaller the better, and soak them in a pan of water. (Paper



In preparing the paper mache, a better modelling pulp will result if the fragments are cut very small—the smaller the better.

towels, the kind used in public wash rooms, will serve much better than newspaper, if you can procure them.) Put a handful of washing soda into the mixture and boil for several hours, adding water as necessary; just enough to keep the paper covered. Stir energetically. Put the

resultant soupy compound aside until called for. It will not spoil. In fact, prolonged soaking breaks down the paper fibre and results in more smooth and pliable pulp. This material is known as paper mache.

Next, scan some old copies of your favorite sports magazines. On the covers, inside pages and among the advertisements will be found paintings, drawings and photos of fish in all manners of action. Choose one that is to your liking, take your fish and proceed to a quiet corner of the house for study and deliberation. Observe your catch closely. Twist him to conform to the position of the one selected from the sports magazine. Note his appearance from all angles. Look closely at the junction of the head and body. Press sharply down on the lower jaw and watch the action of the gill covers. Preserve in your memory all the important features that impress you during this preliminary investigation.

Trace a side view outline of your subject onto a piece of paper. By placing the stomach area against another portion of the paper and supporting the dorsal fin, a top view drawing can be accurately executed, also. Sketch in the position of the various fins and gill openings. Add any notes you deem necessary.

At this stage, you may prepare the skillet. While the butter is sputtering over a slow fire, cut off the head. Remove the brain and eyes, filling their cavities with cotton to maintain the original shape of the head. If the plans call for an open-mouthed mount, insert an upright match between the jaws. Cut deep to sever the fins and tail, clean them of surplus flesh, then tack amputated parts to a small board. Should the fish you are copying have extended fins and tail, see to it that corresponding parts of your specimen are stretched accordingly. Place dissected members where decaying odors will not offend and



Cleaned and mounted, the amputated head and fins are allowed plenty of time to dry and rid themselves of obnoxious odors.



keep an eye on the neighbor's cat. Now, cook the body to a turn and watch out for splinters as you devour the remains.

Returning to the container of paper pulp, proceed to pour off excess water. Vigorous stirring with a paddle will reduce lumpy pulp to a finer state. Press out more of the liquid, until the mass is firm enough to model. Help yourself to a cupful of flour from the family larder and, with your hands, work it well into the mixture. (Prepared dry paste, the kind used for hanging wall paper, may be used to better advantage.) With a suitable board as a base, take up a handful of the pulp and with outline drawings and action picture before you, begin modelling the body. Since the actual head and fins are to be attached later, these parts are left out of the hand shaped model. A close scrutiny of the plaques shown in the accompanying photographs will suggest the general procedure. As you add a little pulp here and there, shaping it carefully to the form and dimensions of your plans, the plaque will take on an interesting, lively appearance. Any tools that will aid in manipulating the pulp may be used; orange sticks, hair pins, nut picks, spoon handles, etc. Work slowly, turning the plaque frequently, and refer often to your picture plans. Remedy mistakes in form, size and shape as soon as they are detected. Give close attention to the figure from all points of view when corrections are made. In that way, you will avoid deforming other sections of the body. This one feature, the pliability of the material, makes it possible for anyone to produce a first rate job on initial trial. If a bad start is made, take up the pulp and start anew. Later efforts always show decided improvement because a growing familiarity with the material strengthens one's confidence. Meanwhile, work on the model may be halted and resumed at intervals. If left standing for some time, cover with a damp cloth to prevent hardening. On drying, the pulp will take a firm grip of the wooden base, rendering intact these two units.

As the plaque nears completion, take the head and fins, providing obnoxious odors have



The first step in modelling the body form. In the foreground is an outline sketch and color study of the fish.

departed, and attach them temporarily to your handiwork. This will enable you to judge and correct minor faults. Smooth areas should be done painstakingly, although an even surface can be obtained by sandpapering after the pulp has dried:

Set the finished model near artificial heat to hasten evaporation. Do not fear warping or cracking. The mass will retain the exact form you have imparted to it. Should the specimen you are preparing have scales large enough to necessitate their showing, take a U-shaped chisel and when the surface starts to harden, set in the scale formation with a gentle pressure of the chisel point.

When the form is altogether dry, the craftsman will be pleasantly surprised with its extreme light weight and durability. In fact, so tough is the dried pulp that it is advisable to cut the slots for inserting the fins before the surface becomes too hard. Adjust these appendages at a natural angle and press fresh pulp around them for support. Repeat this operation with the tail. Fit the head snugly, cutting away obstructions and applying soft pulp wherever needed to make the head join the body properly. The eyes and interior of the mouth can be neatly modelled by inserting small bits of pulp and forming them to proper shape with a small tool. The plaque need not be shellacked prior to the application of colors.

Four tubes of paint: Lemon Yellow, Prussian Blue, Harrison Red and White will provide all necessary colors by the simple expedient of mixing. Purchase them from your local hardware dealer along with several small brushes. Should these specific pigments be unavailable, then any deep red, yellow and blue will do. A passable job of painting will require having on hand a colored picture of your particular specie of fish. Otherwise, you will have to rely on memory.

Experimenting with the pigments will develop one's color sense far beyond the power of words. However, several suggestions at this time will aid the novice.

Red plus yellow makes orange, yellow and blue gives green while purple results from adding red to blue. These mixtures have a wide range of variety in themselves, depending upon the proportionate quantities of the compounding pigments. Thus, an excess of red in orange makes red-orange, while a preponderance of yellow changes the same mixture to yellow-orange. Purple and green, by the same process, yield numerous related hues. Joining white to any color makes a lighter tint of that color. Blue-purple is employed as a darkening agent because black has a



In no time at all, the general shape of the original specimen appears—minus the head and fins.

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# BLAWNOX, ON THE ALLEGHENY

By ADAM J. SOCHER

**WE CALLED** it the Blawnox Sports-mens' Club. Three years ago eight fellows met from house to house planning a sportsmens' club. Today we have one hundred and eighty-eight members—not all fishermen but hunters and lovers of the great outdoors.

Once we had a meeting place established we got the fishing fever real seriously. Where it used to be tramping from one home to another to get a trip started or to make plans for a fishing trip, we now have one large meeting room and two smaller ones.

We have caught lots of bass. Some of the members have gone to Canada, to Erie, up to Minnesota. There was not much fishing "dope" that they could give out as the fish are plentiful in these places. One is sure to have lots of catches with either artificial or live bait. What we wanted was more information than we had learned from experience on bass, Pennsylvania bass fishing.

Charles K. Fox, one of the ANGLER's contributors on bass fishing, stated he and his fishermen pals use gut leaders when they plug for bass. This was something that we had never tried. We had used gut leaders with fly rods but not casting rods. We always used the wire leader or tied the plug right on the line. We had never seen anyone up at Erie or up the River use a gut casting leader. We decided to write Mr. Fox and find out how to get the gut leader and line out through the guides and not have those back lashes or bird nests which upset us when we are casting. The answer was the double water knot for attaching the line and leader. The knots slipped through the reel and guides perfectly. That was in March, 1936. Now we all have thirty or forty feet coils of gut leaders already soaked



Views like this are typical in a float down the Allegheny.

in the leader box before we leave home on a trip. Here is one formula that Ray Bergman uses to soak gut leaders—to four ounces of distilled water add one ounce of glycerine and one-quarter teaspoon of baking soda. Leaders and gut can be kept in this solution at all times for safe preservation. We feel certain that since using the casting leader that some bass striking our lures would not have struck if the wire leader was fastened on the lure.

We have met fishermen plugging that were not having very much success on days that the bass were not striking plugs. It would be "what kind of plugs are you using" and the usual question "where did you get them." Then on looking over the fishermen's outfit they usually would have a wire leader, 20 lb. test line, a six inch plug. Well, we used them ourselves not so long ago. Then would start the now familiar lecture. Since we have been using a 12 lb. test line, ten foot gut leader and  $\frac{3}{8}$  to  $\frac{1}{2}$  oz. plugs I and the fellows I fish with are getting more strikes and having more sport. The newly found friend has his doubts about using a 12 lb. test line, 15 to 20 lb. test gut leader with a small safety pin swivel fastened on to the plug. We have never lost a bass on this tackle yet.

I have seen muskies up to 38 inches in length hooked, fought, brought to the canoe and put in a sack on a 12 lb. test line and casting leader with a 9 inch wire leader next to the plug, as a muskie has longer jaws and sharper teeth than a bass. I have seen bass caught in Canada with the casting leader, the small swivel safety pin snap next to the plug bringing strikes on a very hot day when they wouldn't hit with the wire leader next to the plug. Once an angler hooked onto a muskie, had the fight and all but won on this outfit when the fish went into a roll and good-bye plug and a section of gut leader.

Some time ago the PENNSYLVANIA ANGLER had an article about minnow bugs—Yellow Sally, Black Sally, Grizzly King patterns—to use with a casting rod,  $\frac{3}{8}$  and  $\frac{1}{2}$  oz. plugs. That had us fellows stumped again. We could not find any store handling these lures and we did not have the manufacturer's name. After our next meeting away went another letter to the PENNSYLVANIA ANGLER and to



Ready for a float. A. W. Bowser of Blawnox with one of the canoes.



the author of the article—where can we get these lures and how best to fish them? The answer came back; we gave the pumpkin seeds a fair trial and found that the writer of the article was surely giving unselfishly of his secrets to make the sport more pleasurable to the fishermen who read this magazine.

Then we read "Gold Bricks" which was another dandy article. We at the club can read and understand these articles now as it is two years since the casting leader, pumpkin seeds and Mack's Minnow Bugs, the Yellow Sally, Black Sally, Grizzly King etc. have made our acquaintance (or have we made theirs?) We have passed all the information that we have learned to the other fellows we meet fishing. That does not mean that we catch fish every time out, but it would be a big help to other fishermen who read the articles if the editors or the writers for the hunting and fishing magazines would name the plugs and makers of them. The gun editors name the different makes of guns, their good and bad points, in their articles so why not do the same for the plugs mentioned? This practice would help the novice fisherman a lot and the old timers would also benefit. I imagine the authors have to go to some expense and spend much time answering the many letters written to them wanting to know where one can buy this plug or that line he had mentioned in his article. When a fisherman writes of his successes on Pennsylvania waters and we are fishermen who fish in Pennsylvania, we should know the make and maker. I must say that we always received a prompt reply from the Editor of the PENNSYLVANIA ANGLER and the authors of articles appearing in this magazine.

Now we cannot reach every fisherman in Pennsylvania when we go fishing so we have made out a list of the plugs with which we have had lots of thrills in the last two years. This list if purchased in its entirety will cost about \$10.00. We formed "plug clubs", nine men in each group, each man paid \$1.20 every two weeks until every man in the group had his set of lures. We started the first of the year and by bass season the plugs, every one, had had a workout on its respective owner's lawn. Here is the list:

1 Mack's Minnow Bug, ½ oz.	
Grizzly King .....	\$ .80
Black Sally .....	.80
Yellow Sally .....	.80
1 Doz. rubber pork rind strips for same	.30
1 Jack Jr. ....	.65
1 Green Perch Pumpkin Seed .....	.70
(Shakespeare Midget)	
1 Red and Yellow Pumpkin Seed .....	.70
1 Al-Foss Shimmy Wiggler, ½ oz. ...	.90
1 Al-Foss Oriental Wiggler .....	.90
1 Doz. Al-Foss pork strips for oriental	.30
1 River Runt Spook (Heddon) .....	1.00
1 River Runt Regular finish mt spook (the dealer will send you the lures that are receiving the most success in the River Runts.)	.85
1 Pflueger tandem spinner size 2/0 ..	.45
(use this spinner with Mack's Min- now Bug.)	
1 River Scamp .....	.85
	—————
	\$10.00



Ken Bowser, plug fisherman, is justly proud of this dandy bass taken during a float.

Good gut leader material is hard to get with the war on in Spain but we have had good success with 15 lb. test artificial at 65¢ for a 40 yd. coil, 20 lb. test at 75¢ for 40 yd. coil. Using ten foot leaders, a 40 yd. coil will give me 12 leaders. Ten small safety pin swivels about 1 in. long for 25¢ more and a person is all set for either large or small mouth bass.

You have read in hunting and fishing magazines about these wonderful floats down some stream in Missouri, Minnesota and Michigan that some fishermen have fishing for bass from a boat or canoe. It usually meant a two weeks vacation, a long trip by car, a good bit of a lay-out of cash. It was something to

dream about for the ordinary workingman. We have solved that problem—down to the point whereby our fishermen, leaving Friday evening after work, can go up the Allegheny River, one of Pennsylvania's major bass streams, and enjoy a week-end of thrilling sport. Of course one must have camping equipment, tent, grub, etc. and a canoe. We only drive from 65 to 130 miles from our homes. When we reach the camp site we pitch the tent, unload the grub and cooking utensils from the car, and put the canoe on top of the car.

The next day at daybreak we drive the car, with canoe on top, five or six miles up the

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# AMATEURS TOOK THESE "LUNKERS"!

By HARRIS G. BRETH

**T**HERE'S a story behind the pictures you see accompanying this article. In fact, two stories. One is the serious food problem confronting the game fish in our larger rivers and streams, the other a true but well nigh unbelievable "fish story" how a group of amateurs landed over a hundred "lunkers" in their first year of bass fishing. Of course, not all these bass were killed, for we stand firmly convinced that "fishing for sport" is the ticket.

As a consistent reader of the *ANGLER* you have undoubtedly given grave consideration to the numerous articles published on the lack of fish food and food fish in our streams which threatens the existence of our game fish. That these articles have been based on fact is without question. Casual and interested anglers and members of the staff of the Fish Commission can show definitely that unless something is done about it a very serious problem will develop which may easily prove insurmountable.

I read every one which appeared with attention, although I did not then consider myself a bass fisherman. You see, prior to last year, my entire bass fishing experience was limited to two days in October, 1937, on Lake Wallenpaupack and—but that has to do with the other story. After reading the articles I tried to check the facts whenever possible. In various parts of the state where I would meet and talk with bass fishermen, particularly those favoring the use of live lures, I found many complaining about the difficulty of "getting bait", both on the streams and from people in the business of selling it. That emphatically backed up the articles I had been reading.

It is reasonable to think that every serious-minded bass and pike fisherman realizes the tragedy which threatens the hard-fished habitats of his favorite quarry, especially rivers and streams consistently fished by hundreds of anglers. The large percentage of these anglers depend on getting their supply of "live bait" from the stream beds and shallow riffles of the streams they fish. Minnows, chubs, helgramites, bass bugs and other things the game fish need and live on during the year are taken out in thousands. Once removed from the streams, the unused supply is seldom if ever returned but thoughtlessly discarded to



G. Albert Stewart, Secretary of Forests and Waters, right, and the author with their catch of bass and wall-eyes taken in Lake Wallenpaupack, Pike and Wayne counties.

die, most times along the highways or in back yards miles away.

There is no doubt that reproduction of these forms of stream life has been disrupted and the supply vanishing, so much so that the anglers themselves are forced to scour smaller streams not inhabited by game fish for their supply of live lures. Look at the steadily rising bids for "live bait" and the constructive conservation laws limiting possession. It is up to every bass and pike fisherman to face the problem from a personal angle if he hopes to enjoy continued good sport. It matters little whether he is a user of "live bait" exclusively, a champion of strictly artificials, or merely a novice with one year's experience, as myself. Something should be done—but what?

What about those three groups of Pennsylvania fishermen? Of them, the artificial lure enthusiasts are a factor in finding a solution to the problem. What of the live bait anglers? This is a large group of experienced anglers mostly, and nothing much can be done quickly enough outside of a law prohibiting the use of live bait, to influence this group to quit using their favorite lures. I can easily understand their point of view, because up to last year I had been exclusively a trout angler, and I know from experience the difficulty I had several years ago switching to artificial flies and streamers from worms, minnows, and other live bait. It was only when one of my bosom pals consistently showed bigger and better trout than I did, catching them all on artificial lures, that I was converted.

It seems to me the key to solution of the problem is with the third group of bass fisher-

men, those thousands and thousands from all walks of life who within the past few years have just begun to take fishing seriously. Included in this group are thousands, like myself, who are just discovering their fishing licenses are good twelve months in the year instead of merely for trout season. These amateurs naturally turn for lures to whatever they think will catch fish. Unless they know the handling and use of artificials, they think such lures are beyond their experience, and turn to live lures, believing them to be the tried and proven route to trophies in the creel.

If these thousands of new and anxious anglers can be shown there is no special knack in the use of artificials—if they can be convinced they can take home as big or bigger bass, pike and pickerel without using "live bait"—then they can be interested in leaving fish food and food fish in the streams for the fish, and part of the immense drain on natural food in our hardfished areas would cease.

But no amateur bass fisherman is going to use artificials simply because he is asked. He has to be shown, even as you and I. Which is exactly what I hope to do in telling the story of how "Amateurs Took These Lunkers", and by showing the actual pictures, perhaps many fishermen now addicted to live bait, will be interested enough to "go and do likewise."

It was in October, 1937, when G. A. Stewart, then Editor and Publisher of the *Clearfield Progress*, invited me to accompany him on a two day fishing trip to Lake Wallenpaupack. I had never fished for bass, being one of those "trout and trout only" fellows but on various occasions while trout



'Paupack bass and pickerel.



fishing together, Editor Stewart had told me the great thrills and experiences bass fishing had to offer the angler. Knowing nothing of that branch of fishing at the time, I am afraid I was a little more than skeptical. My attitude was soon to change.

Arriving at Lake Wallenpaupack, we put up at "Pep" Singer's Landing. Bright and early the next morning we were out on the lake, skirting the shoreline of a small island noted for being the habitat of "lunker bass." A casting rod was placed in my hand. An enormous plug, it seemed to me, was tied to the end of the line. It was about four inches long, with shiny propellers fore and aft, and hooks big enough to anchor a rowboat. It resembled a greenish frog, and floated, and it was explained that the idea was to reel in and make it kick up a fuss on the water like a frog swimming.

I knew less than nothing about handling it, but the gods were with me, because after the first few casts there was an explosion on the water between me and the shore and I was fast to a huge, struggling large mouth bass, and finally landed it—a four pounder! Thrills? Well I should say! We had a most successful trip and netted some nice ones during our limited stay, all or nearly all except the pan-fish, taken on artificials. However, with the opening of trout season last year, I almost forgot about bass fishing—until the last week in July.

At that time several mutual trouters and myself were fishing a tributary to the Allegheny River near Kinzua, Pa. Luck had been poor, so one of the boys suggested we try for bass in the Allegheny with our trout streamers. We did. I had more fun with a twelve inch bass on my fly rod than I had had all day.

The following Sunday none of my former pals were interested in a return to the Allegheny, but my fingers were itching. So I called a friend of mine, who had never had a fishing rod in his hand before, to go along. He consented, and we bought an assortment of bass



Action aplenty in this picture as Herb Singer battles a 3½ pound bass on Lake Wallenpaupack.

plugs, flies and tackle and rigged up two outfits, and believe me, I did not forget to include a double-propeller floating plug!

We spent hours experimenting with various lures. As a last resort, I tied on the propellered plug and stuck with it, mostly I suppose,

because I liked the fuss and sputter it made on the water while being retrieved. Lo and behold—the bass liked it too! That is, after I had tried all kinds of ways of making it act on the water. I got results by letting it lay a moment and then reeling in with short, slow pulls. My final catch for the day was three bass, but what bass! Beginner's luck, fourteen, fifteen and sixteen inches. Oddly, I wasn't bothered with a bass hitting it which seemed any smaller than the smallest I landed.

I felt sorry for my pal. He started slinging streamers and plugs about ten in the morning and kept slinging them all day long until six in the evening. He never had a rise. He was arm sore, leg weary, wet and tired out. But discouraged? Not on your life—he was the one who was r'arin' to come back the next Sunday.

The story was practically the same. Although he also used the double propellered plug, I had all the luck, getting two nice ones, fifteen and seventeen inches. Again he cast his heart out all day long. No fish did he get, but a huge thrill came his way when for a few seconds he was fast to an enormous old lunker.

Our next trip was a honey. By five in the evening, I had two fair fish, both about fifteen inches. He had none and no rises either. Yet he still persevered. Then it happened! I was about a city block above him on the river when suddenly the hills echoed and re-echoed with his yells. He had tied into a big one and was telling the world about it. Hurrying to him, I arrived in time to see him pick it up and toss it on the bank—a wily old bronzeback



Plugs took these "Lunkers."

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# THE BASS CRISIS

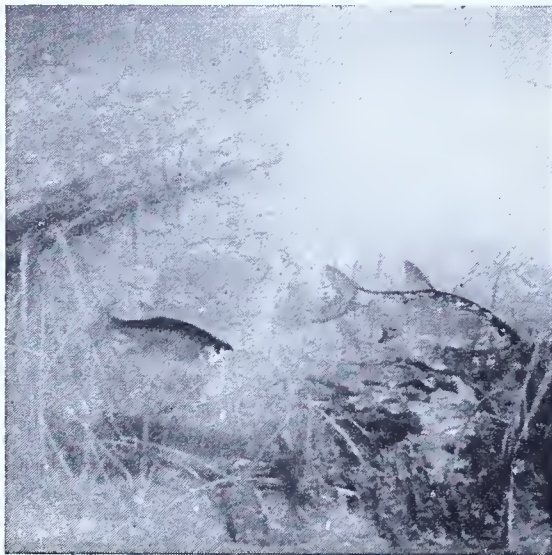
## A Discussion of Factors Influencing Pennsylvania Bass Fishing

By ALEX P. SWEIGART

**T**O MANY of us, there is no moment during days astream more thrill-packed than that split-second, surging, dynamic strike of a good smallmouth bass on a rock studded watercourse. In our humble opinion, he embodies the acme of game fish qualities; a vicious and bold striker, lunging and resourceful in the smashing underwater and above-surface battle he makes for freedom. It may be truthfully said that here is a fish asking no quarter and giving no quarter; a swash-buckling freebooter of the clans of scale and fin that has endeared itself to thousands of our fishermen. Granting its popularity, we must view with grave concern certain unmistakable signs during the past two years of a decline in number as well as condition of bass in many of our waters.

The black bass record in Pennsylvania brings sharply to attention this fact: That nature, and her complex scheme of things, must be taken into first consideration if any improvement in bass fishing in our waters is to be accomplished. Natural propagation of the bass in a wild state counts most heavily. The period of greatest abundance for the smallmouth bass in the Keystone State occurred during the latter part of the nineteenth century in waters east of the Allegheny mountains. We must recall in this connection that the original stock for this teeming bass population comprised only 2,044 adult smallmouth bass, netted from the Delaware River after the species had become well established in that stream, and stocked in other Pennsylvania waters. In a surprisingly short time in virtually all instances, the bass population of these streams had increased to such an extent that definite cycles were known to occur. These cycles, according to competent observers such as Hon. Henry C. Ford, of the Fish Commission in its infancy, and Weightman Stelwagon, responsible for the Stelwagon Bass Chart of growth for the species, were apparently governed to a major extent by the density or scarcity of bass forage in the streams. That nature maintained an extremely delicate balance between the bass and this vital supply of natural organisms upon which they relied for existence goes without saying. A thinning out of forage such as the crayfish, helgramite, minnow, stone catfish, and the young of other species was observed to be followed almost immediately by a decrease in number of bass, the latter being forced to turn upon their own young to a much greater extent than normally during periods of forage scarcity. In other words, the bass itself was a major factor in maintaining the sensitive natural balance in waters where it occurred. It is to be observed, relative to the period just mentioned, that lack of tackle suitable for most effective bass fishing and the presence on our streams of comparatively few bass fishermen were also factors governing the supply of bass.

Modern bass fishing presents a far more complex situation than that prevailing in the nineteenth century. Hundreds of thousands of fishermen must, of necessity, find their sport on our limited mileage of bass waters with a



Shiners rank as good bass forage.

resultant intensification of fishing. Many of these anglers are live bait fishermen, relying chiefly upon bait fish or fish bait taken from bass waters or tributaries to such waters. This tremendous drain upon the forage supply has brought on, to a major extent, the bass crisis we face today, for after all, bass nature has not changed one whit since the first bass swarmed in eastern Pennsylvania waters. Voracious and requiring an immense supply of living organisms for its welfare, our present day bass, smallmouth or largemouth, must rely in many of our streams on a seriously curtailed food supply.

We must recognize four primary requirements if we are to have good bass fishing: First, an abundant supply of live forage in bass waters; second, favorable water conditions, from the angle of temperature and clearness, at spawning time; third, introduction of new strains of bass to interbreed with bass already in a water thus bringing about an infusion of new blood to the benefit of the bass population in a stream, and, fourth, adequate protection, particularly prior to and during spawning.

### More Forage

Years of checking and rechecking on our Pennsylvania bass waters have served to convince us that, as in the instance of trout, the surface in this line of fish research has barely been scratched. So intricate is the bass problem, so many factors that nature alone can control enter into it, that constant observation gives only a bare inkling as to its solution. But of this we stand convinced, *the key to good bass fishing rests in an adequate supply of forage.*

Last year, the bass fishing in the famous Conodoguinet Creek in Cumberland county fell off alarmingly. Our line of inquiry led first to fishermen who fished live bait and who relied upon catching it in this stream. Without exception, we found that these fishermen were experiencing unheard-of difficulties in securing helgramites, crayfish and stone catfish. Invariably the answer was "A lot of work and darned few helgramites and crabs."



Lacking sufficient other forage, the smallmouth bass will make serious inroads on its own young.



From another angle, the record and near record smallmouth and largemouth bass were taken without exception in waters having an abundant food supply, big waters, waters that could not be effectively riddled of their food supply with legal minnow nets. Lake Gordon in Bedford county, Stillwater Lake in Monroe county, the North Branch of the Susquehanna, and the Upper Allegheny furnished fishing far above the average as did big French Creek in northwestern Pennsylvania. One exception occurred in little Lake Lynn, Fayette county, which yielded the largest smallmouth reported. This small body of water, however, is reported literally teeming with forage.

There are few who will question the fact that natural reproduction of bass in a wild state in our streams is vital to future good bass fishing. Here, again, an abundance or lack of food has definite bearing. Like the bear in the animal kingdom, the bass goes into a period of dormancy during the winter months, usually from some time in November until the water temperature in our warm water streams rises in the spring. In preparation for this period of hibernation, the fish must gorge themselves on living organisms, thus laying in a supply of fat and tissue upon which to draw during dormancy. Here then, we are convinced, is the key to the present bass crisis. Unless the adult bass go into the winter with a good reserve of fat and tissue to carry them through the winter, it is very possible that, in the instance of the female fish, her body will draw upon the supply of eggs for nourishment thus weakening her physically and quite probably rendering her sterile. Emerging from dormancy in the spring, the adult bass, usually spawners in the third year, are ravenous from their long fast. To be in tip-top shape for spawning, they must build back rapidly the energy which was consumed during hibernation, for the reproduction period usually comes



Largemouth bass today share the bass fishing limelight with the smallmouth in Pennsylvania.

in late May or early June. During both of these vital periods for wild spawners, the presence of an ample supply of forage is a primary requisite. Lacking this, natural reproduction so essential to good future bass fishing may be seriously affected.

Bass of both species are exceptionally active fish in a wild state, and apparently the fact that they consume so much energy during the feeding season has a great deal to do with their voracity. Live, moving food is taken, and while an abundance of minnows, stone catfish and the young of species such as the sucker, rank as excellent bass forage, the crayfish, commonly called crab, is, we believe, an outstanding food organism for both smallmouth and largemouth bass. To confirm this fact, when you open bass taken during the coming

season, note in how many instances the stomach contents include crayfish.

In their foraging, bass of both species are highly selective, in fact, we rank them in this respect with the trout. Harrowing the schools of silver shiners in the morning and driving these little silvery fish into the shallows in their lusty quest for food, by nightfall of the same day the smallmouth bass may be nosing about the bottom rocks in quest of helgramites or crayfish. Temperamental is the word for this foraging tendency and this moody switching of diet has without doubt proved a definite saving factor for bass in our hard fished streams and lakes.

#### Spawning Protection

Also highly important to the welfare of the bass is the protection accorded it under the fish law during the spawning period. In our inland waters, the bass season does not open until July 1 when, in most instances, the spawning act has been completed. No sportsman would take bass from the nest at this time, but unfortunately there is a small percentage of our great army of fishermen utterly lacking in principle who take spawning bass from the nest.

The fact is well known that, while protecting eggs and young until the latter are leaving the nest, the male smallmouth or largemouth bass strikes savagely at any object that approaches or drops on the spawning bed. Removal of the parent fish is virtually certain to mean loss of eggs or helpless young as sunfish and minnows make short shrift of the contents of the nest. It is to be recalled that the baby bass, while still having the yolk sac attached, is virtually helpless to escape from invaders of the nest.

#### Favorable Spawning Conditions

Favorable conditions at spawning time have strong bearing on the crop of bass in a wild state. The tendency of the adult fish to pair off for the act of reproduction seems fairly well established. The male, it is believed, prepares the nest, clearing away silt and other foreign substance from a pebble or gravel bar that has



Rockbottom streams are ideal for the smallmouth bass.

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# PENNSYLVANIA BASS WATERS AND HOW TO REACH THEM

Each year we receive many inquiries on outstanding bass waters in Pennsylvania and how to reach them. The ANGLER offers the following list, with contact points for each stream, in the various counties.

**Adams County**—Conewago Creek, to be reached at East Berlin on highway route 234; Bermudian Creek, at York Springs on route 15; Conewago Creek, South Branch, at New Oxford, route 30; Marsh Creek, at Seven Stars, route 30.

**Armstrong County**—Allegheny River at Kittanning, route 422; Buffalo Creek at Wirthington, route 422.

**Beaver County**—Beaver River, Little North Fork, Darlington, route 51; Brush Creek, Unionville, route 68; Conoquenessing Creek, Harmony Junction, route 528.

**Bedford County**—Bobs Creek, Pavia, route 869; Dunnings Creek, Cessna, route 220; Gordon Lake; Centerville, route 220. Rays-town Br. Juniata River, Everett, route 30; Wills Creek, Hyndman, route 96.

**Berks County**—Maiden Creek, West Ham-burg, route 22; Manatawney Creek, Griesemers-ville, route 662; Ontelaunee Lake, Leesport, route 122; Little Swatara Creek, Bethel, route 22; Tulpehocken Creek, Bernville, route 83.

**Blair County**—Raystown Br. Juniata River, Williamsburg, route 866.

**Bradford County**—Chemung River, Athens, route 220; N. Br. Susquehanna River, Towanda, route 6.

**Bucks County**—Lehigh Coal and Navigation Company Canal, Morrisville, route 32; Neshaminy Creek, Hulmeville, route 263; Little Neshaminy Creek, Neshaminy, route 611; N. E. Br. Perkiomen Creek, Sellersville, route 309; East Swamp Creek, Quakertown, route 309; Tohickon Creek, Quakertown, route 309.

**Butler County**—Connoquenessing Creek, Ren-frew, route 68; Slippery Rock Creek, Elliotts Mills, route 108; Wolf Creek, Butler, route 8.

**Centre County**—Bald Eagle Creek, Howard, route 64.

**Chester County**—Brandywine Creek, West Chester, route 100; E. Br. Brandywine Creek, Downingtown, route 30; N. Br. Brandywine Creek, Coatesville, route 30; French Creek, Phoenixville, route 23.

**Clarion County**—Allegheny River, Foxburg, route 238; Red Bank Creek, New Bethlehem, route 66.

**Clearfield County**—Chest Creek, Mahaffey, route 26; Sandylick Creek, DuBois, route 219.

**Clinton County**—Bald Eagle Creek, Lock Haven, route 120; Kettle Creek, Westport, route 120; Pine Creek, Jersey Shore, route 220.

**Columbia County**—Fishing Creek, Blooms-burg, route 11; Huntingdon Creek, Fork, route 339.

**Crawford County**—Conneaut Creek, Conneaut-ville, route 18; Conneaut Lake, Conneaut Lake,

route 6; Cussewago Creek, Meadville, route 322; Oil Creek, Hydetown, route 8; French Creek, Cambridge Springs, route 19; Pyma-tuning Reservoir, Jamestown, route 332.

**Cumberland County**—Conodoguinet Creek, Carlisle, route 11; Susquehanna River, New Cumberland, route 5.

**Dauphin County**—Conewago Creek, Eliza-bethtown, route 230; Susquehanna River, Middletown, route 230; Wildwood Lake, Har-risburg, route 11.

**Delaware County**—Darby Creek, Media, route 1.

**Erie County**—Conneaut Creek, Albion, route 18; Edinboro Lake, Edinboro, route 99; French Creek, Mill Village, route 6; S. Br. French Creek, Union City, route 6; W. Br. French Creek, Wattsburg, route 8; LeBoeuf Lake, Waterford, route 19; Lake Erie, Erie, route 19.

**Forest County**—Allegheny River, Tionesta, route 62.

**Franklin County**—Conococheague Creek, Greencastle, route 11; W. Br. Conococheague Creek, Mercersburg, route 16; Conodoguinet Creek, Orristown, route 433.

**Greene County**—Browns Fork Creek, Waynesburg, route 18; Dunkard Creek, Bob-town, route 88; S. Fk. Ten Mile Creek, Waynesburg, route 18; Wheeling Creek, Wind Ridge, route 21; N. Fk. Wheeling Creek, Wind Ridge, route 21; S. Fk. Wheeling Creek, Wind Ridge, route 21; Whiteley Creek, Greensboro, route 88.

**Huntingdon County**—Aughwick Creek, Orbi-sonia, route 522; Juniata River, Mill Creek, route 22; Frankstown Br. Juniata River, Water Street, route 22; Raystown Br. Juniata River, Saxton, route 26; Standing Stone Creek, Huntingdon, route 22; Sideling Hill Creek, Shade Gap, route 522.

**Indiana County**—Lt. Mahoning Creek, Rochester Mills, route 236.

**Jefferson County**—Red Bank Creek, Summer-ville, route 28; Lt. Sandy Creek, Cool Springs, route 36.

**Juniata County**—Juniata River, Port Royal, route 75; Tuscoraro Creek, Port Royal, route 75.

**Lackawanna County**—N. Br. Susquehanna River, Ransom, route 629.

**Lancaster County**—Big Chickies Creek, Mt. Joy, route 230; Cocalico Creek, Denver, route 222; Conestoga Creek, Hinkletown, route 322; Conowingo Dam, Chestnut Level; Holtwood Dam, Pequea, route 324; Safe Harbor Dam, Washington Boro, route 441; Middle Creek, Lincoln, route 322; Muddy Creek, Bowmans-ville, route 73; Octoraro Creek, Quarryville, route 222; Susquehanna River, Columbia, route 30.

**Lawrence County**—N. Fk. Lt. Beaver River, Beaver Falls, route 18; Neshannock Creek, New Wilmington, route 18; Lt. Neshannock Creek, New Wilmington, route 18; Slippery Rock Creek, Ellwood City, route 88.

**Lebanon County**—Lt. Swatara Creek, Jones-town, route 22.

**Luzerne County**—Harvey's Lake, Harvey's Lake, route 415.

**Lycoming County**—Loyalsock Creek, Mon-toursville, route 15; Lycoming Creek, Wil-liamsport, route 220; Pine Creek, Waterville, route 44.

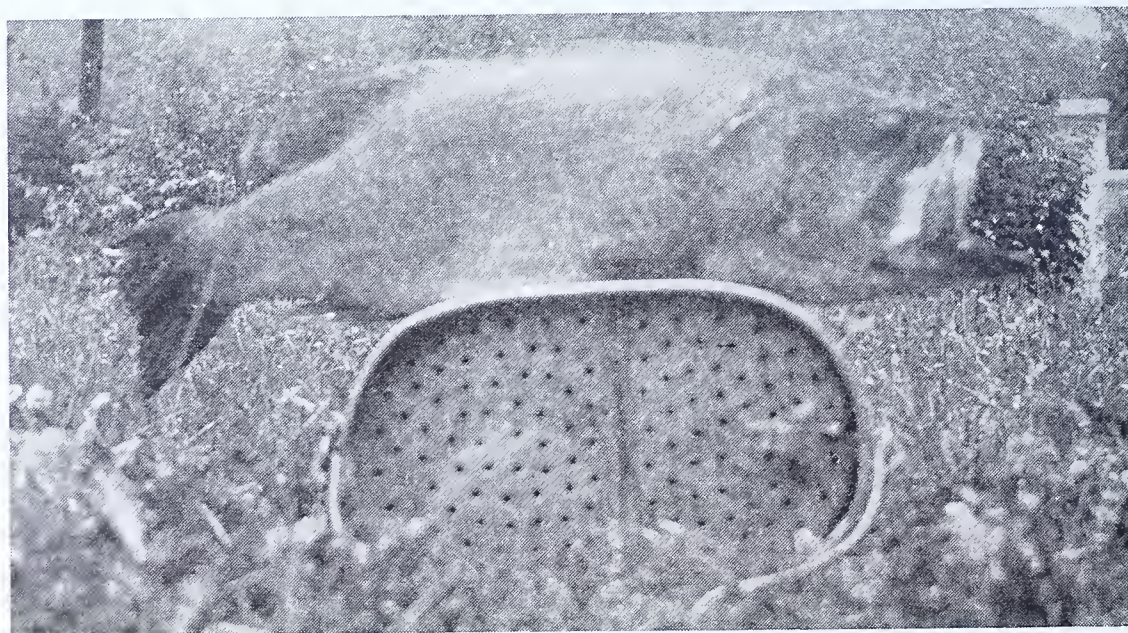
**McKean County**—Allegheny River, Port Allegheny, route 6; Oswayo Creek, Shingle-house, route 44.

**Mercer County**—Cool Spring Creek, Mercer, route 19; Neshannock Creek, Mercer, route 19; Pymatuning Creek, Clarksville, route 18; Sandy Creek, Sheakleyville, route 19; Sandy Lake, Sandy Lake, route 62; Shenango River, Green-ville, route 18.

**Mifflin County**—Juniata River, Lewistown, route 322.

**Monroe County**—Delaware River, Delaware Water Gap, route 611.

**Montgomery County**—Perkiomen Creek, Per-kiomenville, route 29; N. E. Br. Perkiomen



Right in the top brackets of record largemouth bass taken last year was this Lake Gordon fish taken by R. W. Ambrose of Cumberland, Md. A good food supply pushed its weight to 7¼ pounds.





Here's last year's record yellow perch, caught in Promise Land Lake, Pike county by Lawrence Lehr, Sr., of Bethlehem. Length 15 $\frac{3}{4}$  inches, girth 9 $\frac{1}{2}$  inches, weight one pound 11 $\frac{3}{4}$  ounces.

Creek, Schwenksville, route 29; N. W. Br. Perkiomen Creek, Red Hill, route 29; Pennypack Creek, Bethayres, route 63; Ridge Valley Creek, Sumneytown, route 63; Skippack Creek, Skippack, route 73; W. Br. Swamp Creek, Gilbertsville, route 73.

*Montour County* — Chillisquaque Creek, Washingtonville, route 54.

*Northampton County* — Delaware River, Easton, route 611.

*Northumberland County*—Mahantango Creek, Dalmatia, route 15.

*Perry County*—Susquehanna River, Marysville, route 14; Juniata River, Millerstown, route 322; Shermans Creek, Blain, route 274.

*Pike County*—Lake Wallenpaupack, Hawley, route 6; Delaware River, Milford, route 6.

*Schuylkill County* — Mahantango Creek, Klingertown; Lt. Swatara Creek, Pine Grove, route 443.

*Snyder County*—N. Br. Mahantango Creek, Mt. Pleasant Mills, route 35; Middle Creek, Middleburg, route 522; Penns Creek, Selinsgrove, route 11.

*Somerset County*—Youghiogheny River, Confluence, route 53.

*Susquehanna County*—N. Br. Susquehanna River, Hallstead, route 11.

*Union County*—Penns Creek, New Berlin, route 304; White Deer Hole Creek, Allenwood, route 404; Buffalo Creek, Mifflinburg, route 45.

*Venango County*—Allegheny River, Oil City, route 8; French Creek, Utica, route 964; Sandy Creek, Pecon, route 8.

*Warren County*—Allegheny River, Warren, route 6; Conewago Creek, Akeley, route 62.

*Washington County*—Buffalo Creek, Avella, route 28; Lt. Chartiers Creek, Eight-four, route 31; Ten Mile Creek, Marianna.

*Wayne County*—Delaware River, Equinunk, route 90; Wallenpaupack Lake, Hawley, route 6.

*Wyoming County*—N. Br. Susquehanna River, Laceyville, route 6; Tunkhannock Creek, Tunkhannock, route 6.

*York County*—Bermudian Creek, Wellsville, route 74; S. Br. Codorus Creek, Sevens Valley, route 616; Conewago Creek, East Berlin, route 194; Lt. Conewago Creek, Zion View, route 111; Susquehanna River, Wrightsville, route 30.

## HATCHERY COMPLETED IN CLINTON COUNTY

Completion of the auxiliary fish hatchery at the Renovo Elks Country Club has been announced. The completed project has a capacity for rearing 100,000 trout, which will be distributed in streams in the county to maintain the fine reputation this area has for fisherman. Five thousand large rainbow trout have already been placed in the rearing ponds.

A four-foot dam across Youngwomans Creek, constructed of stone and concrete, will impound the water necessary to supply the five rearing ponds. As the fish fry increase in size they are transferred from pond to pond.

After the Fish Commission has given approval to the hatchery, some 40,000 trout, which have been held at the Federal Hatchery at Lamar, will be brought to Renovo. The Clinton County Fish and Game Association has been paying for the necessary feed while the fish have been at Lamar.

Original plans for the hatchery called for a log crib dam and rearing ponds. The Fish Commission recommended a more permanent structure of a stone dam and stone walls for the rearing ponds. The original appropriation by the WPA was \$13,321, but with the change in plans the total cost rose to \$17,894. The sponsors' contribution of \$2,100 was guaranteed by the Elks Home Association. The Elks worked through the Clinton County Commissioners in order to comply with the law requiring sponsorship by a political subdivision.

Work was begun in May, 1937 and continued until August, 1938. Work was stopped then temporarily while more funds were sought. When these were granted, the work was resumed last December.

The board of governors of the Elks Country Club, the Clinton County Fish and Game Association and the Western Clinton Sportsmen's Association have worked together in support of the project.



William Collins, Pittsburgh and Howard Haines, Conneaut Lake Park, bear witness to the fact that Joseph Foizey of Pittsburgh scored this catch of two largemouth bass on plug in one cast. The fish weighed 2 pounds and 2 pounds 2 ounces respectively.

## APOLLO SPORTSMEN HOLD "BOOSTER" MEET

Apollo Community Sportsmen had nearly 100 present at their big "Booster" meeting held in the Municipal building at which time an interesting and highly enjoyable program was given.

V. C. Miles, Soil Conservation expert, gave a fine talk on what is being done in reforestation and how it aids the sportsmen by providing food and cover for the wildlife.

The Apollo Male Quartet, composed of Clyde Ament, John Ament, Curtis Ament and Blain Kneppshield, sang three numbers to start the program and were very well received.

William A. Ashe, district attorney of Armstrong county, and president of the Armstrong County Sportsmen's League, also spoke and gave timely advice to the Junior Sportsmen. Walter H. Miller, of the Templeton Club, who is secretary of the Armstrong County Sportsmen's League, also spoke as did Ray H. McKissick, Armstrong County Game Protector. W. F. Pauly, counsellor and treasurer of the local organization, and N. B. Johnston, fire warden, were on the speakers list also. The meeting was in charge of R. Clyde King, president of the Apollo Community Sportsmen's Association.

At the close of the meeting, three reels of motion pictures were shown by R. Clyde King, on the subjects of "Beavers," "Ruffed Grouse" and a "Sportsman's Program for a Year," which was released by the Pennsylvania Game Commission.



## BRONZE BACKS OF THE ALLEGHENY

By ROLLAND LUTHER

IT WAS a beautiful Friday afternoon last September. I had nothing to do before Monday, so I called a friend of mine on the phone. "Hello, Frank, how about a day or two fishing up the Allegheny?" Frank said, "O. K., what time will we leave?" "As soon as we can get ready," I replied.

Frank arrived about 6 o'clock. We packed the car with our fishing tackle and enough grub to do us for two days. We filled up with gas and oil. It was after 7 o'clock before we got started. We had over 100 miles to drive so we took our time, driving carefully so we could look around.

It was a beautiful summer night and as we got farther away from the cities and towns, the stars seemed to grow bigger and brighter.

We stopped in Clarion to get a bite to eat and drink a cup of coffee. Then we resumed the trip on up through Tionesta where we struck the Allegheny, following it up to East Hickory. Crossing the river at this point, we continued upstream about 15 miles to a farmer's place where we were to stay.

It was mid-night when we drove in to the farm so we did not disturb anyone at the house, driving on down into a large meadow fronting the river where we parked the car under a big hickory tree so we would have shelter from the heavy dew along the river.

"Well, here we are," Frank said, getting out his boots. I pulled my boots on, rigged up a gasoline lantern. We went down to the river where the boats are and rowed out to a large island that has a gravel shore all around it.

Now began the back breaking work of hunting bait. The softshell crawfish is the best bass bait I have ever found in the river. We worked hard for 3 hours and found about 60, wrapping each one separately in a damp kleenex paper which protects them from the sun and air. This will keep them soft and lively for a number of days if they are put on ice or in a refrigerator.

We rowed back to camp, built a good fire, prepared that good old outdoor breakfast of bacon and eggs, toasting our bread on forked sticks. We washed this down with a large tin cup of black coffee, and as it was after 4 o'clock, knew we should be on the river.

I said, "Come on, Brownie." I call him Brownie as his name is Frank Brown. He is on the Fish and Game Committee of the Vandergrift Sportsmen's Club. We assembled our fly rods and automatic reels and finally started up the river in the boat. We rowed up to an island where there is a large weed bed extending into the river, a wonderful feeding ground for bass. Anchoring the boat side-wise so we could both have plenty of room to fish, we baited our hooks with big, "pink bellied soft shells" hooking them up through close to the body.

I cast mine out close to the weed bed, stripping off surplus line so there would be no tension on the bait. It had hardly settled to the bottom when "Wham," a strike. The enameled line ran smoothly through the guides. I left him go. He took out about 15 feet of line and stopped. I stripped off more line, giving him plenty of time to kill and eat the crab. He started again so I set

the hook. Then began the thrilling battle of about 10 minutes. I knew he was a good one the way he arched my little 4 ounce rod. He would come to the surface shaking his head like a bulldog, but, playing him gently, careful not to break the light leader I was using, I worked him into the boat. Brownie slipped the net under him, 18 inches of beautiful bass. I caught two more in quick succession an 18 inch one, and a 17 inch one. Looking over at Frank's rod, I called "Hey, Brownie, a strike!" The line fairly hissed through the guides. Frank grabbed the rod, letting him have plenty of time and leaving him run a couple times before setting the hook. Boy, I thought that little rod would surely break in the middle, but Brownie is an old timer at the game. He played him nicely for 15 minutes and finally he came in close to the boat, turning upon his side and completely played out. I slipped the net under him, snapping a picture of him, 19 inches of bass, every inch a fighter.

We caught fish steadily till the sun came up over the mountain. Then we knew the fishing in that spot was over, for it is shallow water and when the shadows leave, the bass go into deeper water. However, we had plenty of fish, and a wonderful morning of thrilling sport. Rowing back to camp, we loafed around in the shade through the hot part of the day. We fished awhile in the evening without much success, so we came in and cooked our supper, washed the dishes, then spread our waterproof blankets under the big tree and to bed.

After a night of driving, a morning of hunting bait, and a hard day of fishing, we did not need being rocked to sleep. We were up the following morning at break of dawn feeling much better and rested. Cooking another good breakfast of the "same old thing," we were back on the river in a short time, rowing up to the same spot we had fished on Saturday.

They were striking even better than they had the morning before if that could be possible. We caught one after another, keeping the largest and returning the rest to the river unhurt. We fished up till dinner time then decided we had had enough fish and fun for this trip. We also wanted to drive home in

daylight so we could view the beautiful mountains. I have seen them many times but I still get a thrill travelling through them.

I can hardly wait till the bass season comes in so I can go back to the old weed bed on the river. I hear people say that fishing in Pennsylvania is not worthwhile, but if you know where and how to take 'em, there are still bronze backs in the Old Allegheny.

## BROWN TROUT TOPS IN HAMBURG CONTEST

William J. Eyer, 29-year-old Hamburg angler, gave other entries in the P. F. Hess trout fishing contest a noteworthy mark for competition on the opening day of the season. A brown trout, caught by Eyer in Spring creek, a tributary of the Little Lehigh, near Trexler-town, measured 18 inches and weighed 3 pounds 1 ounce. Irvin J. Moyer and Harvey Correll witnessed the measurements.

Several other enthusiasts brought fine specimens to the store at Second and State streets, but declined to register them when they read of Mr. Eyer's exploits. Among these were brook trout landed by Red Schaeffer and James Freese which measured 11 and 13 inches, respectively, and a 14-inch rainbow trout hooked by Peter Motes.

Thirty-seven anglers had registered for the contest before April 20. The group included one woman, Elma Rubright of Shoemakersville. Several veteran trout fishermen, such as Ray Wolfe of Shoemakersville, Frank Swoyer of Mohrsville, Robert Shollenberger, Dr. A. A. Cope, Ben Nice, Clarence Steely, Peter Motes and George D. Gordon contended they will better Eyer's catch before the contest ends, July 1, 1939.

Other entries in the contest follow:

Willis Quigley, Mark Leiby, Ray A. Schearer, Guy Mayes, George W. Wagner, Lewis Roeder, Russell Machemer, Jacob and Norman Kessler, Paul Kelly, Irwin Roth, Howard Raudenbush, George Heckman and Lee Seidel, all of this borough; Mark J. Wentz, Owen Henne, Fritz Williams and George Strausser, Shoemakersville; Charles Althouse, Hamburg R. D. 1; Conrad E. Reber, Mohrsville R. D.; Paul Haas and Paul Swoyer, Port Clinton; Orlando E. Kauffman, Mohrsville; Ernest Ketner, Strausstown; Bud Fridirici, Orwigsburg.



This fine catch of heavy girthed smallmouth bass was scored last season on the Allegheny River at Templeton.





*Question: What are usually the best times to fish for bass during late July and early August?—H.L.K.*

*Answer:* When air temperatures in mid-summer hover between the 90 and 100 marks, it's usually a safe bet that bass water temperatures at such times are also high. This frequently means that during the heat of the day bass are deep down hovering about some stream bed spring hole. Definitely, we believe, periods of extreme heat affect the foraging inclinations of smallmouths and largemouths. Over a period of years, it has been found that during the so called "dog days" bass activity seems to center in that period from 3 to 6 in the morning and from 7 to 9 in the evening, with some whalin' good bigmouth fishing around midnight to 4 A. M. in lakes during the dark of the moon. Incidentally, in plugging deep lakes from a boat, center your attentions on the shoreline, trying to place the lure as near to the water edge as possible.

*Question: How soon in the fall do bass generally go dormant? What type of shelter do they seem to pick when they go into hibernation in our streams for the winter?—J.L.*

*Answer:* When it comes to pulling a disappearing act in the autumn, it's hard to match the smallmouth bass of our warm water streams. The average fisherman can detect different stages of the stiffening up process in bass if he fished for them during the fall. They seem to become increasingly sluggish in striking at anything but live bait in smaller waters by around October 1, although a lot depends on frosts which may occur prior to that time. Even in striking live bait during their preparation for dormancy, less vim will be displayed than is the case, say, in early July. Checking back in our fishing notebook, we find a reference to the taking of an 11-inch smallmouth bass in Sherman's Creek on October 2 last year on a quarter ounce wobbler, worked slowly and close to the bottom. This fish hit sluggishly and was brought in with virtually no resistance, and was the last bass we hooked on plug last fall. It was extremely stiff when the plug was removed and it was released. In our average rock bottom bass stream, the smallmouths may find much suitable cover in which to spend the dormant period. It may be a deep underwater entrance to a muskrat burrow, the shelving of a deep lying ledge, a cavity beneath a giant boulder, or a sunken, hollow log. A number of years ago, two farmers removing driftwood for heating purposes from the Chillisquaque Creek in Montour county heard a splashing in the hollow section of an old log, and upon investigation found two bass, each about 10 inches in length, in the cavity.

*Question: Is there any advantage in using a tapered leader in fishing fly and spinner or other flyrod lures for bass when the water is low and clear?—J.L.*

*Answer:* If there is, we fail to see it. In the first place, on any lure, you never can tell when you'll hook into a top-rank fish, one that in its first sweeping surge will put plenty of test to even a strong level leader. Frankly, from the economy angle, whether you're fishing fly rod or casting rod, first rate leaders can be secured from 10 yard coils of artificial gut, 10 or 15 pounds test. Leaders from this material will stand a lot of gaff. They should, of course, be soaked well before using, and it is never wise to use them a second time as the material tends to fray and become milky and stringy in appearance.

*Question: Am planning a trip to the North Branch of the Susquehanna River for bass this season. What are some good locations on this stream?—R.D.*

*Answer:* The North Branch ranks deservedly as one of the ace smallmouth bass streams on the eastern seaboard. It offers better than 100 miles of splendid smallmouth water from above Wilkes-Barre to the New York state line. Mehoopany, Wyalusing, Laceyville and many other points along the river offer accommodations when it comes to bait, lodging, boats and other fishing requisites. It is, generally speaking, a fast stream, characterized by swift rifts, eddies and here and there deep pools. Wall-eyed pike also seem to have staged a good comeback in this stream in recent years and last season some mighty fine wall-eyes were taken. Ranking tops as live bait are helgramites, nightcrawlers, minnows and stone catfish. Fly and spinner and floating bass lures account each year for nice bass on the fly rod while lighter casting lures rank well with the bait caster.

*Question: In bait casting for bass with light lures weighing from a quarter to half an ounce, what length rod would you suggest?—Art J.*

*Answer:* For better rod action in handling lures of the weights you mention would suggest that the rod should be at least 5½ feet in length, and Charley Fox, who is one of the best bait casters we have ever seen in action, likes a 6 foot model, light action, particularly in using quarter and ⅜ ounce lures. This last reference is, of course, to a bamboo. Rod makers are also building some nice action into their tubular steel models, and these, light in weight, will stand a lot of punishment.

*Question: I own several weedless plugs and have had many strikes but I don't land but one in ten strikes. Is there any way I can cure this getting off business?—S.J.V.*

*Answer:* If you're landing one fish out of ten on weedless lures your record is not to be sneezed at. Most weedless lures come equipped with steel guards designed to prevent the hook from snagging into weeds. Often in striking from the side at one of these lures, a bass will, as a result, merely graze the point of the hook, and, if fastening at all, will connect so lightly that a few twists and it is off. If you've spotted the approximate position of a good fish, be constantly on the alert for the strike and with the impact, strike back as quickly and sharply as you can. Another handicap and a serious one to be overcome in weedless fishing is the environment itself. When hooked, a good fish, by burrowing deep in the weeds can soon tangle enough dead weight about itself to throw the odds on getting away definitely in its favor. For that reason, we repeat, your average weedless lures is not to be sneezed at. Tight lines.

*Question: We were talking trout fishing the other night and one of the boys made the remark that small helgramites, to be found in trout streams were mighty good trout bait. I didn't know that helgramites were to be found in such cold water. Are they?—J.L.D.*

*Answer:* The chances are, and we've checked with Chas. M. Wetzel on this, that the "helgramite" referred to was none other than the larva of the fish fly. There is some similarity in appearance between the two.



Annual Banquet of the Tarentum District Sportsmen's Club. Right, Toastmaster Howard Stewart, Clearfield, presents John M. Phillips, a Dean of Pennsylvania Sportsmen, with a token of appreciation for his conservation efforts.



## SPRING CREEK OPENING SHATTERS ALL RECORDS



As first-day lines whipped the Spring Creek project.

**O**PENING of the Spring Creek Project, popularly known as the "Fisherman's Paradise" is fast rivalling that red letter day of the angler's year in Pennsylvania, opening of the trout season. One of the most gala openings of the project in its history occurred on May 9, when 1,249 devotees of the sport of Izaak Walton, 1,129 anglers and 120 anglerettes, thronged the mile and one-eighth of stream at a point about four miles upstream from Bellefonte. Here are the final figures for a day that broke all attendance records:

Number of fish taken, 1,469; killed, 1,070. Of this number, 156 were brook trout, 170 brown trout, and 744 rainbow trout. The largest trout taken was a rainbow 22½ inches in length and tipping the scales at 3 pounds 12 ounces.

James Biddle and Mrs. Robert Guisewhite

and their assistants in the registration office were rushed for four hours in the morning signing up the long line of anglers, men, women, boys and girls, who came from all over the State and from New York, New Jersey, Maryland and Ohio to try flies with barbless hooks on the big brook, brown and rainbow trout.

When the siren sounded at 8 o'clock hundreds of anglers were still in line to be registered and two hours later the line seemed never-ending. Before the morning's ingoing rush was near over there started a line-up of anglers to check out with their catch of two trout, on the opposite side of the registration building. This lineup continued, without let-up, the balance of the day and it was necessary to sound the siren soon after 6 o'clock in the evening, two hours earlier than the usual closing time, to get all of the people out of the enclosed project before the middle of the night.

Aside from the 1,249 registered fishermen, who covered practically every yard of shore space along each side of this ideal trout stream, and one side of the ladies' branch, in the all-time record first-day attendance, several hundred persons strolled along the stream.

Six years ago on the first opening day of Fisherman's Paradise the attendance was exactly 316. Each year the place becomes more popular and last year the first-day registration was over 1,200. Up until 4 o'clock, Tuesday afternoon, the largest trout registered was a 22-inch rainbow weighing 3½ pounds, and caught by Mrs. Sophie Annis, of Portage, Cambria county, in the large stream. Mrs. Annis hooked, played and landed the big trout with the skill of the best of the male anglers. Her catch closely approached the record for the day.

Nine out of ten anglers checking out early had their limit of two trout, over ten inches in length, Tuesday, and the estimated kill for

the day was close to 2000. Quite a number of anglers returned every fish caught to the stream, regardless of size, these anglers being thrilled with the sport of playing ten trout, all that may be hooked in one day.

Among the anglers and visitors, at the opening, were Seth Gordon and members of the State Game Commission, Charles French, Fish commissioner, and Sam Truscott, Fred McKean and Harry Weber of the Fish Commission, Oliver M. Deibler, former fish commissioner; Nathan R. Buller, former fish commissioner.

Art Neu, former national fly casting champion, who caught and released his ten trout, and gave a demonstration of fly casting during the afternoon, and many other notables.

The Project will be open each weekday from 8 A. M. to 8 P. M. for the free use of licensed anglers. Barbless hooked flies only may be used and not more than 2 BB shot used for sinkers. On the men's stream the trout must be 10 inches or over to be legal, and on the ladies' section, the limit is 7 inches. Only two trout may be killed by an angler, who may fish in the Paradise five times during the season, which closes July 8.

### FIRST CATCH

Carl W. Bair, Shiloh, an employee of the York Paint and Hardware company, caught five rainbow trout in Otter creek, near Lucky, in the lower end of the county at the opening of the season. Two of the trout measured 17½ inches each. They were landed shortly after 7 o'clock with worms as bait. It was his first trouting trip.

### CRAWFORD ANGLING VETERANS ASTREAM

What with the balmy days of spring here at last—or aren't they?—a lot of Crawford county men who have exceeded their allotted three score and ten will hie themselves into the county, find a shady spot and dip their hook into the stream reports the *Meadville Republican*.

Patriarch of them all will be Smith Dean, of R. D. 3, Centerville, who boasts of 86 years. He has taken out his fishing license at the office of County Treasurer Ruth M. Brown and he's waiting now for a summer of real contentment.

Altogether six men who are in their 80's and 30 who are in their 70's have taken out licenses to fish.

In Meadville the roster includes William H. Hoffer, 177 Wadsworth Ave., 76; Lyman S. Pope, 461 East Henry Street, 72; J. A. Craig, 294 Randolph Street, 71; Charles C. Peiffer, Alden Street extension, 78; O. C. Childs, Grand View Avenue, 78; John Hessler, 278½ Poplar Street, 79; William Heckler, Baldwin Street extension, 73; C. E. Crawford, 72 Mead Avenue, 76; J. R. Strauss, 785 Market Street, 72; James R. Hamer, R. 1, 71; Thomas Shoup, R. 2, 82; F. J. Lingle, R. 7, 80; J. F. Hornak, R. 9, 70; Joseph Prall, R. 7, 71; J. E. Roubush, R. 7, 71; and Samuel Beig, 77.

Oliver Resinger, Saegertown, 83; George W. Crawford, Townville, 80, and Henry M. Daniels, Venango, 80, are others ready to match their skill against the youngsters.



John Paul Fisher of Portage with his 22 inch rainbow trout taken on opening day at the Project.





What with the late spring we hed, the bass in this neck o' the woods semed ter git on the nest later then last yere. I bin awatchin' a ol' he bass atakin' keer o' the eggs in his nest in the shaller down ter McKinley's flat an' frum the size o' thet nest, we oughter hev a rite big swarm o' the little black critters cum a week er 2.

Reckin we better watch our bass cricks this here seezun whilst the bass is on the nest, fer thare's jest a few fellers meen enuf ter try ter take 'em then. An' rite now I'm sayin' thet takin' the seezun an' size limit off o' rock bass a cuppel yeres back h'ain't done our bass fishin' much good. It gives the feller thet fishes durin' spawnin' time fer bass jest about the only thing he needs ter raise merry ned with black bass by bein' abel ter fish live bate er fer thet matter enny kind o' bate thet a ol' he bass mite hit an' still clame ez how he's only fishin' fer rock bass ef ennybody cums along. Jest 1 pare o' hefty 2 ter 3 pound bass in a stretch o' the crick is worth more ter the bass fishin' ef they kin spawn without bein' bothered than a heck o' a lot o' stockin'.

Most o' the boys hereabouts is cumin ter the idear fast thet the best thing they kin do ter help the bass fishin' in the crick is ter close off all kinds o' fishin' on their propitty frum the middel o' May until bass seezun opens. Si Jones dun thet a cuppel yeres back an' he allus sernes ter hev sum mitey nice schools o' bass in the flats on his propitty.

Anuther thing us live bate fishers fer bass figgers'll help the fishin' in the crick is ter take mitey sparins o' stone cattles, minnies, crabs an' clippers thet we use in fishin'. Savin' the food supply is jest ez needed ez savin' undersize bass.

## LANDS FINE BROOKIE

It took Mrs. C. V. Johnston, of Woolrich, just 15 minutes to land her first fish on the opening of the season. It was a 15½ inch brook trout, weighing two pounds, which she caught on Spring Creek state grounds, above the Fisherman's Paradise, where fishing is restricted to the hours between 7 a. m. and 8 p. m. Mrs. Johnson caught her fish at 7:15 a. m. and was assisted by Mr. Johnson in landing the prize.



Bob and Don Miller of Phoenixville scored this fine catch of brook trout and rainbow trout in Valley Creek on opening day of the trout season.

## KNIGHT SPEAKER AS ANGLERS DINE

A gathering of 120, including anglers, non-anglers and would-be anglers, together with a number of distinguished fishermen of state and national prominence enjoyed a trout dinner and an interesting program sponsored by the Bellefonte Kiwanis Club at the Penn-Belle Hotel in Bellefonte on the evening of May 8, the night before the opening of "Fisherman's Paradise."

Those attending the dinner were especially impressed with the talk given by John Alden Knight, noted angler, discoverer of the solunar theory and originator of the solunar table which many fishermen and hunters swear by, Mr. Knight is one of few men in the history of this country who has won a professorship because of his fishing ability. He is professor of "The Theory and Technique of Fresh Water Angling" at Columbia University, New York. He cited many instances in which his solunar theory has proved correct when tried in fresh and salt water angling.

Prof. Knight also spoke of a number of new developments in fishing equipment, outstanding among which is the rod with the parabolic action enabling the angler to cast great distance without getting the customary sag and dip in his line. This rod is now being manufactured and will soon be placed on the market. He also spoke of a new line that is hollow and lighter than water. This line is now available, he said.

Dr. Richards H. Hoffman served ably as toastmaster and was introduced by Armstrong L. Francis, chairman of the program committee. The meeting was opened by Herman J. Hazel, president of the Kiwanis Club, and

group singing was led by Cecil Walker, with Mrs. Earl K. Stock as the piano accompanist. Rev. James B. Musser offered the invocation.

Brief talks were given by Oliver M. Deibler, former Commissioner of Fisheries under whose administration the "Paradise" was conceived and built, and by the present head of the Commission, Charles A. French.

Dr. Gordon Trembly, professor of fish culture in the department of zoology at Penn State, gave out some interesting figures gathered so far in the trout tagging experiment he conducted for the fish commission. Some 3,000 trout, tagged with a small numbered metal band, were stocked in a three-mile section of stream in the Penitentiary grounds last fall and spring. Fishermen were asked to co-operate with Dr. Trembly by reporting any tagged trout they killed and where the trout were caught. So far more than 40 per cent of the tagged trout have been reported caught. Brook trout were apparently the most vulnerable, with rainbows and brown next in order. By checking the reports on the tagged trout caught the commission will gain valuable information as to the growth and movement of the various species after they are stocked in the streams. Dr. Trembly thanked the fishermen for their co-operation in this experiment.

Dr. Hoffman introduced the guests present, including members Fred McKean and Harry Weber of the Board of Fish Commissioners. He also read letters of regret from a number of distinguished persons who were unable to attend the annual affair held by the Kiwanis Club.

Secretary Karl E. Kusse of the Chamber of Commerce supervised distribution of copies of Bellefonte's new publicity folder which was received recently.



## INVINCIBLE BASS

By H. B. WAGNER, Jr.

SCATTERED throughout Pennsylvania are numerous stone quarries which, due to the uncovering of springs during quarrying operations, were abandoned when the water level became too great. Many of the quarries have been stocked with small and large mouth bass and some with trout. Incidentally, trout which were stocked in these quarries grew to a large size in a short period of time. Anglers who are familiar with any of these quarries usually are of the opinion that the bass are of a much higher degree of intelligence than the ordinary bass and to a certain extent invincible. In my opinion they are not exceptionally wary, nor in any sense of the word invincible. I am well aware that this a very broad statement, but I am certain that if fellow anglers will heed a few of my suggestions and observations they too will change their opinions.

My experiments were carried on at a quarry near Lebanon, Pennsylvania. Its description, my observations, etc., are typical of most other quarries, I believe. The water originates from springs in the rocks and is very clear, becoming cloudy only after a heavy shower. It clears up within an hour or two after the rain. The depth ranges from twelve to thirty-five feet, varying according to the different rock projections and ledges. Undoubtedly, I have found, objects seen under the surface of this water are magnified in size. For example, a bass that appears to be twelve inches in length, when taken out of the water, will be a mere seven or eight inches. While feeding, the bass can be seen working slowly around the quarry staying quite close to the quarry walls. Their food consists of smaller prey which inhabits the quarry. Insects also play an important part in their diet. Spawning occurs in late May or June as in other waters.

It is not my intention to bore the readers with long accounts of the different lures and baits I have used. Therefore I will merely say a few words about each, stressing the most successful ones. Many anglers, I believe, upon first fishing a quarry, conceive the idea that the casting rod plugs would make an excellent lure in these waters. An any rate, this was my first impression, which I soon found was a sad mistake. By this I do not mean that these bass cannot be taken on plugs, but that the

catches are irregular and small. It is commonly agreed upon, I believe, that the aim of the great angling society is to develop a lure which will always be "sure fire." Fortunately for the fish and perhaps the fishermen, a lure of this type has never been brought into the angling world. At any rate the plug falls short of being an ideal lure for this fishing. I have taken bass on both the underwater and floating type plugs although only while fishing them at night. The floating type plug took bass by casting it near the rock walls and retrieving it very slowly. To take bass on the underwater type plug I found it was necessary to allow it to sink until it was nearly on the bottom and then retrieve it slowly. No large bass were taken on plugs. The fly rod spinner and fly combination proved to be a worthy lure, but a great percentage of the fish hooked were small. A dark fly and a bright spinner appeared to attract the most fish.

Nightcrawler fishing proved to be the most successful method of taking bass with any degree of surety. Therefore it is my method of fishing the nightcrawler which I intend to stress. My tackle for this fishing includes a six and one half ounce fly rod with a stiff tip, a light reel, and a light silk line. In my opinion the most important item of tackle is a light nine foot leader. The hook is tied on the leader and no more weight added. Before starting to fish, the angler should find a spot as near to the water as possible. The worm is then cast at least fifteen feet out from the rock wall and allowed to sink in towards the rock wall in an arc. If there is no strike until the line comes to rest parallel with the rock wall, a few more feet of line should be stripped off the reel and the worm allowed to sink a few feet deeper. If a strike does not come in a few minutes the procedure should be repeated.

The success of this type of fishing rests on the fact that the bass while feeding travel around the edge of the quarry in small schools. By keeping the bait in motion and where it will be conspicuous to the bass, you will be certain to strike a school occasionally. A friend, by the method I have just described, took two large smallmouth bass in a single evening.

Invincible bass? Try it and form your own opinion.



Hiyah, fellas! Here's Davie Wetzel, 8, of Beaver Brook, Luzerne county, with three Penn's Creek smallmouths, 12½ to 13½ inches. He landed 'em on minnows, reports Bill Bottomley, of Hazleton.

## CONDITIONING DAM TO RECEIVE FISH

The former furnace dam, just north of Macungie, now property of the East Penn Foundry Co., is being cleaned out and prepared for fish reception under the auspices of the WPA.

When this is completed it will be a fine place for anglers. There really are three dams for use of the furnace, the one part of the Swabia Creek, being the largest. These are all to be made habitable for fish.

Some years ago the main dam was placed in condition and used for swimming or bathing purposes, but later no particular care was taken so the dam became filled with mud and stones. It is expected with this present attention the place will be very suitable and useful for the purpose intended. With the former Wescoe Dam, south of the borough, now containing a fine lot of trout, this second one will afford in time additional angling opportunity.

## ARMSTRONG HEADS EASTON ASSOCIATION

Paul Armstrong, city bacteriologist, was elected president of the Easton Fish and Game Association at a meeting in Vanderveer Hall. Other officers elected include: Howard Dykman, vice president; Jacob Bowers, secretary, and Harry Vandegrift, treasurer.

Ralph Burwell, retiring president; President-elect Armstrong, and Mr. Vandegrift were elected delegates to the Northampton County Federation of Sportsmen's Clubs. Alternates are William Dietrick, Floyd Messinger and Dan Miller. All will serve until April, 1940.

It was announced that through the co-opera-

tion of the Easton Association and Warren County Rod and Gun Club, Unit No. 1, in conjunction with Fish Commissions of New Jersey and Pennsylvania and the Federal Government progressive stocking programs of bass will be carried on in the Delaware river.

A tentative fish tournament in the Bushkill Creek will take place in June, as has been the custom for the last three years.

A communication was received from Ross Buller, of the Pennsylvania Fish Commission, announcing a survey of Martin's Creek will be made as soon as possible. Should a favorable report result, the stream will be stocked with trout.



# BIG FISH CONTEST

The Perkiomen Valley Sportsmen's Association of Schwenksville will again sponsor a big fishing contest. The purpose being to have members become better acquainted with methods and ways of catching fish for sport and pleasure, and to encourage sportsmanship in fishing.

## RULES

1. The contest is open to all Junior and Senior members in good standing at the time of catch.
2. The contest will open April 15th and close November 30th.
3. All fish entered must be taken with rod, reel and line in waters of Pennsylvania.
4. The monthly meeting night shall be the deadline for entering any fish caught prior to that date. All entries to be turned in to the Secretary or members of the Fish committee.
5. The entries receiving the highest total number of points including all species will be eligible for first prize.
6. Every fish entered above the following minimum length will receive the number of points shown in graduated scale opposite that length.

TROUT BROOK	RAINBOW TROUT CATFISH	BROWN TROUT BASS Large Mouth Small Mouth	PICKEREL WALLEYE PIKE	CARP
8 in.— 1 point	12 in.— 1 point	14 in.— 1 point	18 in.— 1 point	20 in.— 1 point
9 in.— 2 points	13 in.— 2 points	15 in.— 2 points	19 in.— 2 points	21 in.— 2 points
10 in.— 3 points	14 in.— 3 points	16 in.— 3 points	20 in.— 3 points	22 in.— 3 points
11 in.— 5 points	15 in.— 5 points	17 in.— 5 points	21 in.— 5 points	23 in.— 5 points
12 in.— 8 points	16 in.— 8 points	18 in.— 8 points	22 in.— 8 points	24 in.— 8 points
13 in.— 12 points	17 in.— 12 points	19 in.— 12 points	23 in.— 12 points	25 in.— 12 points
14 in.— 18 points	18 in.— 18 points	20 in.— 18 points	24 in.— 18 points	26 in.— 18 points
15 in.— 24 points	19 in.— 24 points	21 in.— 24 points	25 in.— 24 points	27 in.— 24 points
16 in.— 32 points	20 in.— 32 points	22 in.— 32 points	26 in.— 32 points	28 in.— 30 points
17 in.— 44 points		23 in.— 44 points	27 in.— 44 points	29 in.— 36 points
18 in.— 60 points		24 in.— 60 points	28 in.— 60 points	30 in.— 42 points
			29 in.— 80 points	31 in.— 48 points
			30 in.— 100 points	32 in.— 54 points
				33 in.— 60 points
				34 in.— 66 points
				35 in.— 72 points
				36 in.— 78 points

A first prize will be given to the Junior member earning the largest number of points on the same basis as the regular contest.

**RULES AND REGULATIONS FOR THE 1939 VERMIN CONTEST:**—5 points are given for each snake tail, crow bill and snapper eggs; 25 points for each snapper shell, fox, weasel, hawk legs and hawk eggs;—this contest to run from Dec. 1, 1938, to November 30, 1939. Anyone having 5 points or more will be eligible for a prize in this contest.

## FISH-O PRACTICE APPEALS TO ANGLERS

For fishermen who are pretty good but want to be better—for amateurs who don't get to streams often enough to develop skill and casting accuracy—for women who can't "go fishin'" except when husbands can get away from pressing business—for these and all other piscatorial enthusiasts the answer is . . .

### FISH-O!

Sponsored nationally by the Izaak Walton League of America, Chicago, Ill., and the American Wildlife Institute, Washington, D. C., Fish-O is the new bait and fly casting game which fishermen, young, old and in-between, have been awaiting these many years.

Casting is both a sport and an art, and the experienced caster, who makes his fishing excursions real adventures in accuracy and skill, is the best conservationist. Fish-O, governed

by a few simple rules, furnishes both the bait and fly caster with a practice medium that can be indulged indoors or out, on land or on water (natural or artificial pools), individually or in teams. Contestants at all times during the play are able to check their positions through a scoring system free of complications.

For equipment, Fish-O requires only the use of standard tackle. The layout of targets—ten on the bait events, five in the fly play—can be erected and dismantled within a few minutes. Five painted bicycle tires will serve in fly play.

Interest in Fish-O is being displayed by individuals and groups in many states, by the Boy Scouts of America, by the National Recreation Association, boys' camps, women's organizations and community associations. Members of the Izaak Walton League of America, in many centers, are busy assembling Fish-O

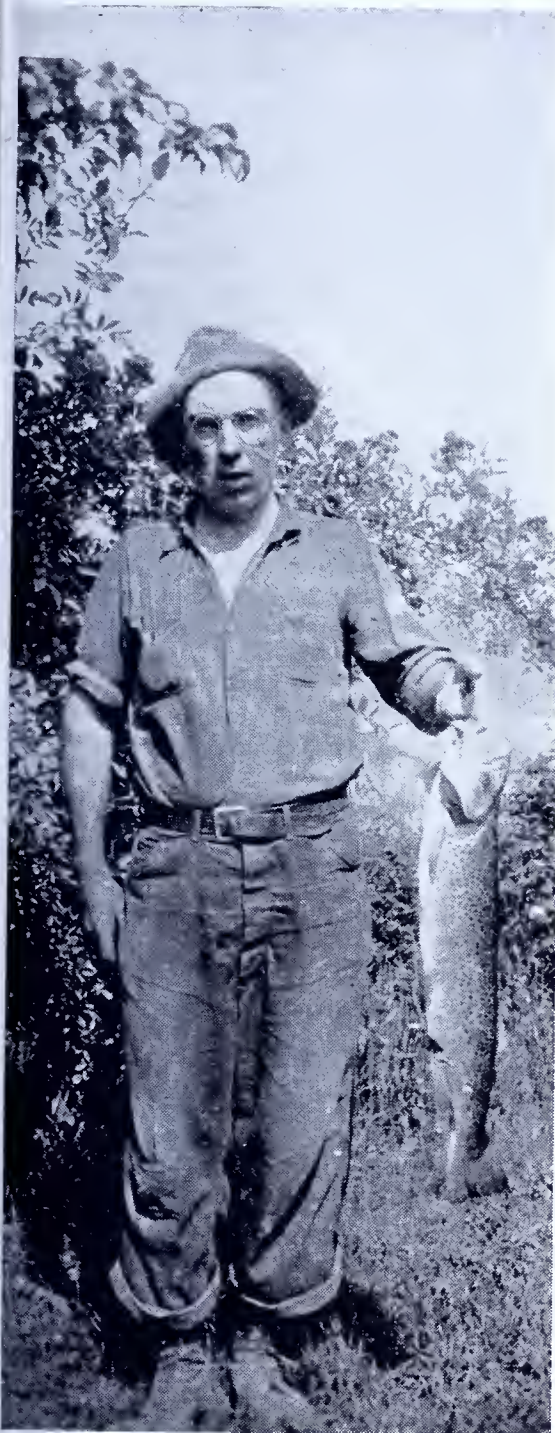
layouts, and even the wing-shots, who usually follow Skeet, are taking up Fish-O.

Newspaper columnists, particularly those specializing in sports events, are commenting favorably on Fish-O, while such established organizations as the National Association of Scientific Angling Clubs have expressed eager interest in the game.

It is expected that Fish-O will be demonstrated at the San Francisco Exposition and at the other end of the nation, the World's Fair, in New York City.

Conservation organizations are showing interest in Fish-O because it provides the right kind of training for young casters who, if they follow the game, will be equipped to pursue the casting sport intelligently and scientifically. Fish-O rules booklets can be obtained without charge by writing the American Wildlife Institute, Investment Building, Washington, D. C.

One of the biggest brown trout taken last year. Caught by Fred Cady of Wrights in Portage Creek, McKean county. Length 27 inches, girth 14 inches, weight 6 pounds 7 ounces.







Harry Hardy, right, with two fine Lake Gordon bigmouths, 5 and 4 pounds respectively. To the left, George Mountser scales a 3½ pound large-mouth bass.

## SCORED FINE CATCHES OF GORDON BASS

Warden Harry Moore of Bedford county received the following interesting letter from Harry W. Hardy, principal of schools at Belle Vernon last bass season.

I am sorry that I did not get to see you at Rose Camp a few weeks ago. We were so tired after our night of fishing at Lake Gordon that we slept almost all day. I left the information you asked for with Rus and last week he told me he sent it on to you. I have been very lucky down here this year. From the first of July to the present date I have caught twenty-one bass with the combined weight of fifty-five pounds. Three of the twenty-one were five pounders.

The reason I say I was lucky was because on the Saturday morning you saw my catch, I stopped at the bridge and talked with a lot of fishermen who had been there for several days and nights and had not even had a nibble. When they saw mine they said, "Now a'int that the limit, we have been here all this time and get nothing and look what he has?" It was the limit both ways as I had my six and they had none. It was the first time in all my experience that I ever caught the limit of any species of fish.

All of my bass fishing down there is plug casting and as to the type of plug, it really hasn't made much difference. I would use one kind one night and get a few and the next night they wouldn't look at anything. My reaction to any type of fishing is to be there when they are feeding and they will take what you offer. I have been down there every

weekend since the First of July and usually they would hit one night out of the three and on the other nights nothing happened.

I am sending you several pictures of my catch. The one with the six bass is the one you saw at the Rose Camp. The other is one taken the middle of July.

The fellow on the left is me. I am holding a five pounder and a four pounder. My Pal on the right is scaling a three and one half pounder. My Pal is George Mountser, sixty-eight years young last month. We have been fishing together for the past fifteen years. He is the kind of a fellow anyone would be proud to "go down the river with"

Here's a little story George floored me with the other morning

He has been throwing plugs for the past five years and until this summer had never even had one rise to his plug. One night this summer at Gordon Lake he was throwing his plug around in a rather indifferent manner when suddenly a big one hit. It hit so hard it knocked the reel out of his hand. In his efforts to control the reel the handles were playing a merry tune on his thumb nail. Finally he gained control of the reel and began to bring the fish in. Realizing he was standing in a lot of high grass and that he would never get the big fellow through to the shore he turned his head to look for better footing when the fish made a sudden rush for the shore and with a vicious twist of its tail knocked George's feet from in under him and down he went in about a foot of water. Naturally he released his grip on the reel and the fish taking advantage of the slack line made another lunge at George with wide open jaws and extended gill covers. In self defense George had to beat it off with his rod while he crawled through the grass to shore. He says it is a good thing he was in shallow water or that bass would have chewed him up. Yes, that one got away but in a half hour George came back and threw a plug in the same place and landed a dandy four and one half pounder. The story I just told you is exactly what he told me when I saw him at camp about dawn. His clothing was still wet and he had the big fish so who am I to doubt a fisherman so much older and more experienced than I.

If you can use these pictures in the ANGLER, it is O. K. with us but be sure to send me several copies of the issue in which they are run.

I am sure I have seen you up there many times but do not know you by name and I am sure you have seen me. Anytime you see a left handed caster around it will probably be me and if you inquire at the bridge someone there will know if I am around. You might hear me on a dark night raising hell with some one for throwing their light on the water. I am rather well known up around there and in an unofficial capacity I try to give you fellows a lift by passing out advice to those who are a little careless. We have salted away our equipment until the suckers begin running in the spring. You see the kind of work we are in it is almost impossible to get in any of the really good fall fishing. Good luck and we'll be seein' you up there next spring.

Yours very sincerely,  
H. W. HARDY.

## NETTERS CAUGHT AT CRYSTAL LAKE

Three Forest City men were arrested last month at Crystal Lake on charges of violating the state fish laws. The arrests were made by Keith Harter, Dalton, regional fish warden, assisted by two members of the state motor police, and eight deputy fish wardens.

Those arrested are William Stankus, 52, 421 Susquehanna street; Peter Kondrat, 49, 408 Lackawanna street, and Frank Markunas, 47, 815 Main street.

Arraigned before Alderman Edward Bellen, North Scranton, each was fined \$100, with the alternative of 100 days in jail, for possession of five trammel nets. Markunas and Stankus were fined \$25 each or twenty-five days in jail, for not having 1939 resident fishing licenses and all three were fined \$40 each or forty days in jail for having in their possession four game fish, out of season. Fines of \$10 a fish or ten days in jail were levied for each fish also.

Stankus and Markunas were fined a total of \$165, or 165 days in jail, and Kondrat was fined \$140 or 140 days in jail, making a total of \$470 or 470 days in jail.

All three were committed to the county jail in default of bail.

## MANY ENTRIES FOR FISHING CONTEST

Four new members were received into membership of the York and Adams County Game and Fish Association at their regular meeting held in the Friendship Fire Company hall, Pennville. They are Walter W. Little, H. H. Crouse, Raymond Wildasin and Claude Snyder, the latter two being honorary members.

The association is sponsoring a fishing contest with many entries being received daily, it was announced. The contest was opened April 15 and will continue until November 30. All sportsmen competing in the contest are to enter fish at any of the local hardware stores, which are cooperating with the association. The annual contest is open to the public and all fish entered in the contest must be caught in either York, Adams, Cumberland or Franklin counties. Thirty-two prizes, which will be awarded at the conclusion of the contest, are on display at the Fischer Insurance Agency, Baltimore street.



Lake Gordon bass caught by H. W. Hardy of Belle Vernon.



## WOULD BOOST FEE FOR FISHING LICENSE

"I have just read your splendid article, "This Modern Trout Fishing," in the May issue of our modern PENNSYLVANIA ANGLER. It's a good job, and points out a serious situation, not one to be reckoned with in some distant future, but something which must be given immediate consideration. It revives the writer's concern, as I hope it has thousands of others and I wish to add my personal thoughts and observations to the matter, writes H. L. Fulkrod of Gettysburg.

"Before going into detail however, let's take hold of the obvious and ultimate answer to the situation, which is as usual the hottest end of the iron and the most difficult to answer. In the final analysis, REVENUE is what it all narrows down to and this is something which will have to be dealt with, regardless of all arguments to the contrary. In the interest of better and more fishing, the writer is deliberately and knowingly going out on a limb and risks sticking his neck out with the following question, which is his answer to the last paragraph of your article, requesting the views of your readers concerning present day fishing.

"Here goes and look out for the hot sparks: WHY SHOULD OUR FISHING LICENSE COST LESS THAN OUR HUNTING LICENSE? The thing just doesn't make sense and the sooner some kind soul sticks his neck out by advocating a sensible and better balanced adjustment of such an arrangement—the sooner the question will be settled and better fishing obtained. It's a fact that our good Board of Fish Commissioners have stepped up the production of our hatcheries and installed the most modern means of distribution, patrol of streams and other features, right up to the limit of their present financial limitations. The fact still remains however that we do need more fish, placed in more streams and in more widely separated sections of the State. The question is quite definitely answered with MORE REVENUE. In spite of all arguments to the contrary and the belief of some political agencies today, it is impossible to get something for nothing. We are indeed fortunate in that our good Commission is NOT ham-strung and tied down by any political agency and when they do get hold of a dollar, we all know it is going to be spent for the PERSONAL benefit of the source from whence it came. That in itself is something few other states boast of and for which we are all most certainly grateful.

"The revenue from the sale of our hunting license, together with the efforts of our good Game Commission, which gets One Hundred Pennies value from each dollar of Revenue received, has provided hunting which is the envy of all neighboring states. It has a Deer Paradise not even equalled 50 years ago, when but few hunted and wild life had a much better chance for survival. Ninety thousand Deer taken from our State in two weeks certainly did not just happen. It took money and the close application of an honest and sincere Commission to bring about such results.

"There is absolutely no limit to what our good Commission could produce, were their revenue increased by means of a Five Dollar Fishing license. AND WHERE IN THIS TROUBLED WORLD OF OURS, COULD



J. A. Thompson and A. W. Bowser, both of Blawnox, with 24½ and 24 inch muskies taken on "Jack, Jr." and green perch "pumpkin seed."

ONE GET SO MUCH CLEAN SPORT AT A COST OF FIVE DOLLARS A YEAR? One could not play marbles for less. The writer is just as much against Taxes, as we have them nowadays, as anyone else and would get up on his hind legs and kick to the high heavens against being taxed for just another Jackass Political scheme or theory. In the case of a good old Pennsylvania fishing license however, I know that what money I pay in is going to be used for *My Personal benefit* and not tied up with a lot of Red Tape, or pooled into a political football. Times have changed and the cleanest and most widely enjoyed sport in the world—fishing—has been no exception. We must face these facts and while doing so, don't forget that our new Sunday fishing has placed an untold strain on our streams, equal no doubt to three times what it previously was. This item has alone placed, or created a hazard which our good Commission never in this world will be able to overcome, without additional Revenue with which to work. I wish I were a writer and able to arrange my thoughts and theories in a more presentable manner. Such not being the case however, I'll just have to ramble along in a half jointed manner in the hope that someone more fortunate than I will carry on from there.

"I do not agree with the theory that we are short of all-year streams which will permit stocking. That is, I believe the least of our worries at the present time, as a trip over the week-end of May 6th and 7th has definitely proved. The writer fished twelve miles of cold, all-year, non-polluted streams in the neighborhood of Potatoe Creek, McKean County, and seven trout was the net result of

the trip. The writer fished these streams twenty-five years ago and could always depend on them for a good day's sport. I mention these streams, with others in mind also, only to support my contention that we do have plenty of streams suitable for trout, and to explode the theory to the contrary. Furthermore, after what are termed suitable streams have become exhausted, which they no doubt will with all the additional sportsmen taking to the streams each year, I believe they too can be successfully stocked. Because, due to the increasing number of fishermen right now, most streams are nearly depleted of trout a few days after the season opens. All of which still adds up to the same answer—more revenue or less fish per fisherman.

"Now, about this Red Letter day—April 15th. We don't want neither do we need such a day. What we do need is more fish, stocked in more streams, and in more widely distributed sections of the State, thereby splitting up the congregating of so many sportsmen on a few super-suitable streams. After all, when a fellow goes fishing, a great part of the pleasure is in getting away from the hustle and bustle of crowds and NOT into them, with the added hazard of some well-meaning brother misplacing a fly where it gives the most pain. I believe most sportsmen will agree with me in this, even though it does mean a hundred mile drive in getting to a stream, where enough elbow room may be found to properly cast a fly.

"This amateur would also like to comment on the other items of your article, as follows:

"(1) I do not believe the lowering of limit per day will find much support. In the first place how are you going to control it? Next,



ten trout are none too many for a day's sport. This theory is based on observations and not for personal reasons, because the writer kills very few trout. Most sportsmen do keep their catch, but I'm sure that it is not done so much for the eating, as for the personal pride in bringing them back and showing to friends. To offset this, it is quite obvious that we must replace that pleasure with something in return for not killing his catch. Something that will distinguish him from a meat fisherman, as well as something that he will be proud to possess. A system of yearly Honor badges, for instance. Ever notice how a lot of fellows like to keep their License Badges from year to year? Some of them like to wear them on their fishing jackets. Well, we might issue a series of Honor Badges, one to be issued each year. These badges could not be bought for cash, but only given upon receipt by our Commission, of an affidavit by the applicant, that he has returned at least thirty legal size fish to the water during the current season. I have a sneaking suspicion that these Honor badges might become real valuable and a source of pride to the owner.

"(2) Lopping off the month of July from our open trout season would I'm sure be agreeable to all of us. I'm for it.

"(3) I am distinctly in favor of reducing the age limit for those required to take out a fishing license. I do believe however that a Junior license might be issued, for an amount of \$1.00 to those between the ages of twelve and sixteen. A one dollar license fee would go far to make a fellow feel that he is doing his bit towards helping to keep his fishing up. It would also teach him that in spite of some of our present Political theories, that one most certainly should not expect to receive something for nothing. After all, the sportsman who pays for his license should be the one to most thoroughly receive the benefits.

"(4) You are dead right in that all Trout waters which have been stocked should be closed to all other types of fishing, except during the regular open trout season. We all like to go sucker fishing, yet why kid ourselves into believing that everyone confines himself to suckers? My observations confirm this and I say, by all means close these streams.

"(5) The closing of all trout nursery waters to all fishing is commendable. I am not in favor of closing any Stream in order to establish Trout or Bass refuges, however. This has been worked out in a splendid manner with our game, but with fish it would be a much different proposition. A Game refuge does assure us of future sport, through the saving of seed stock but with our present state of production at our hatcheries I can see no reason why we should close streams to public fishing. A controlled stream, such as our Spring Creek Paradise is a splendid idea and should be kept up. I hope we will have many more just like it.

"There is only one way out. The situation narrows down to the undisputable fact that if we want better fishing, or to even maintain our present fishing, our Commission must have additional revenue with which to work. I'm willing to bet my shirt that nine out of ten sportsmen will be glad to subscribe to a Five Dollar license, providing it will provide them with better fishing, on more streams, with a more spread-out distribution of stocking.

"That's my story—agree with it or not. Nevertheless, it will be agreed upon in the near future. Either that, or our sport will gradually peter out to the extent where all of us will be compelled to subscribe to a private club, where streams are posted and for members only, at many times the Five Dollar license fee proposed."



William Burke, Girardville, produces the "evidence," a nice smallmouth bass.

## BASS FISHING GOOD IN SUSQUEHANNA

We are very proud of the fact that we have some excellent fishing in Susquehanna county, wrote V. B. Corle of Montrose, last season. To prove this, I am submitting the following information on a largemouth bass taken.

This fish was caught by Morris H. Baker of Montrose on a fly rod weighing under four ounces. It measured 22 inches in length, had a girth of 16 inches and weighed  $5\frac{3}{4}$  pounds. Dr. G. D. Thomas caught a smallmouth bass the same evening that measured 18 inches and weighed  $2\frac{1}{2}$  pounds. We have enjoyed a very good season in this section this year. Good catches were reported from most all lakes. Our sportsmen are cooperating with the Fish Commission and we have less violators this year than usual.

"Oh yes," said the pilot of the river steamboat, "I've been on this river so long that I know where every stump is."

Just then the boat struck a stump which shook it from stem to stern.

"There," said the Captain, "that's one of them now."

## SCHUYLKILL ANGLERS GOOD SPORTSMEN

Schuylkill County fishermen are to be congratulated on the fine way they are conducting themselves along streams this season writes Jack Richards of Pottsville. They are respecting the rights of the farmer by parking their auto properly, by not tearing down his fences, walking over his planted fields or leaving gates open and they are not littering the banks with lunch papers and other wastes. A few complaints have been heard from farmers but they are so few that it really is a credit to the army of fishermen who have been indulging in their favorite sport.

Keep up the good record by sticking close to the bank of the stream and not wandering all over the place and you will find you will not wear out your welcome. Remember always that you are the farmer's guest.

## MY FISHERMAN HUSBAND

He has plenty of fishing tackle;  
Yet, he wants much more;  
He always sees something better  
In a sporting goods store.

Everyday he goes to town,  
Exchanging fish stories on his way;  
Hoping to hear someone say,  
"Boy, they are biting to-day!"

Then he rushes home  
With unusual haste;  
Evidently there's not  
A moment to waste.

He gulps his food so fast;  
It really surprises me—  
How he escapes indigestion—  
How can he healthy be?

In the garden, for bait,  
He'll search so seriously;  
While a group of small tots  
Watch ever so curiously.

With a crash and a bang!  
He gets his equipment to-gether;  
Soon he is on his way,  
Regardless of the weather.

When he arrives at the pond,  
As usually, he will find,  
That in his haste to get away,  
He had left something behind.

All day long, in a boat he'll sit;  
In a hot blistering sun;  
He certainly wouldn't relish it,  
If there was work to be done.

Hours later, he'll return,  
Looking sort of dejected;  
He wasn't bringing in the haul  
That he had expected.

"The same old story"  
I will hear him say;  
About the "big one"  
That always gets away.

Mrs. Anna F. Cifersky.



HUNTINGDON ANGLERS VIE FOR PRIZES

Two followers of Isaac Walton hold awards from the Huntingdon County Game, Fish and Forestry Association for prize trout taken on the first day of the season.

To Alton Gracey of Huntingdon a line, donated by the C. H. Miller Hardware Co., was awarded for the longest brook trout, 10 1-11 inches.

Harold Fisher of Huntingdon, president of the sportsmen's association, received a line for the longest rainbow trout, 16 5/8 inches. This prize was donated by the association.

To those members of the association who did not make the grade on the first day "be not dismayed" writes "Howd" Shilling. You still have an opportunity to capture the season prize! The contest committee announces the season prizes as follows: For the longest brown or rainbow trout an \$18 fly rod. For the longest brook trout an \$18 fly rod.

The season trout contest will be governed by the following rules: Competition is open only to members of the association having paid dues to March 1, 1940. No members will be awarded more than one fishing contest prize during the season. All fish entered must be caught by the person making the entry and only fish caught in Huntingdon and adjacent counties will be eligible. No fish taken from a private reserve is eligible; this rule does not apply to fish taken from "Angler's Paradise", Spring Creek, or any other reserve where fishing is open to all license holders. Fish may be drawn before official measurements are taken. No fish less than 10 inches will be eligible for a prize. No prize given will be exchangeable.

FURST DISCUSSES ANGLING HISTORY

Apropos of trout fishing season, S. Dale Furst, secretary of the Consolidated Sportsmen of Lycoming County, spoke to members of the Rotary Club of Williamsport in The Lycoming on the part Central Pennsylvania has played in the history of fishing literature.

Mr. Furst had with him at the meeting books written by famous authors which contained the names of many of Lycoming

County's fishing streams. One of them, written in 1830 and published in England, spoke of the Juniata and Susquehanna Rivers and of Spring Creek at Bellefonte.

What the general public knows of fishing, he stated, comes from a study of angling for trout a knowledge which applies to all kinds of fish. He urged a study of methods to preserve streams of the county.

Samuel C. Castner, member of the Game Commission, introduced the speaker. William C. Wagner, past president, presided. Tracey L. Nicely introduced William Savage as a new member.

FAVOR STOCKING DAMS IN BUTLER

The Butler County Hunting and Fishing club went on record as favoring the stocking of the Butler Water company dams with state and federal fish when the club held its regular monthly meeting in the Cubs hall on East Jefferson street.

The question of game planting was discussed and a program outlined by the members. Thirty new members were reported.

Ralph Shaffer was in charge of the entertainment which featured Verda Reges, Anne Reges, Herbie Lefever, Ned and John Gamble, known as the Dipsey Doodlers, who gave an hour's entertainment featuring old-time music and songs.

A BORN FISHERMAN

Too tired to work,  
Too tired to walk;  
Too tired to read,  
Too tired to talk;  
Too tired to eat,  
Too tired to drink;  
Too tired to write,  
Too tired to think;  
Too tired to ride,  
Too tired to row;  
Too tired to stay,  
Too tired to go;  
Too tired to want,  
Too tired to wish,  
But never yet  
Too tired to fish!



Harris Breth of Clearfield with a fine catch of Allegheny smallmouths.

CATFISH CLOSES COMPANY PLANT

A 12-inch fish—and a catfish at that—caused the loss of several hours work to a number of Phocnix Iron Company employees at Phocnixville. It also meant a lot of trouble to other employees.

The catfish, in some manner, made its way into a water pipe at the Iron Company's "new mill." It became wedged in the pipe in such a manner that the flow of water was shut off and the mill was forced to close down.

Men, armed with long pieces of wire, went fishing in the pipe. They worked for a long time before the obstruction was finally removed. It was a much bedragged catfish that finally was pulled out of the pipe.

Workmen expressed the belief the fish had traveled through the intake pipe, leading from the Iron Company reservoir on Vanderslice street.



Water-jack dam, a good stream improvement device.





L. D. Kline and son, Joe, of Erie, with their catch of Lake Erie wall-eyed pike.

## ERIE WALL-EYES

"As I have been a subscriber to the ANGLER for two years and have not seen many articles about the fishing in Lake Erie, I am sending you a photo of myself and son, Joe, with a two hours' catch of wall-eyed pike taken in Lake Erie on August 26, 1938", writes L. D. Kline of Erie.

"We were using a spinner and bucktail with nightcrawler on the hook when this catch was made. The total weight of the catch was 20 pounds, the largest of which weighed over three pounds. This catch is not unusual as the next day we caught almost as many, and the day following that, another friend and I caught 11 wall-eyes that would have weighed almost 30 pounds."

## FISHING NOTES FROM TWIN LAKES

From Frank V. Stutsman, veteran outdoorsman at Twin Lakes, Pike county, come the following highly interesting notes on fishing at these popular bodies of water during the 1938 season. We quote Mr. Stutsman.

Perhaps the first entry of interest to you is dated April 24th. On that day we noticed the big red suckers spawning in the shallows. Temperature of the water was 41 degrees Fahrenheit. With them were sunfish (after the spawn probably) and at night eels were observed working on the beds. These suckers are very hard to catch with rod and line. The females weigh up to 6 pounds and over, while the males might average from 2 to 3 pounds. Their spawning season lasts about two weeks.

Shortly after the sucker spawning, the yellow perch and bullhead catfish started to bite. Some of the fishermen like to have their catches weighed and "my man Friday" weighed quite a few and made entries in my notes. Some of these follow.

May 7. John Quinn, and son, of Matamoras, caught 8 perch and 5 catfish, weight 13 pounds.

May 9. Again Quinn and Mr. Stid, of Matamoras, 9 perch and 9 catfish, weight 19 pounds.

May 15. Laezur and Winans, of Matamoras, 10 perch and 2 catfish, weight 11 pounds.

May 23. Quinn alone, 5 perch, 3 catfish and 3 sunfish, weight 10½ pounds.

May 25. "Mart" Fisher and brother of Matamoras, perch, catfish and sunfish, 11 fish in all, weight 10½ pounds.

But enough of such items. These are quite typical of this early fishing which lasts well into June. Actual weight (not guessing) our perch and catfish average about a pound. Occasionally 2 pound perch and 2½ pound catfish were caught.

The surprise catches made in this early fishing were by Gordon Davis and John Quinn of Matamoras. The first named caught an 18 inch brook trout and about two weeks later Quinn caught one 14 inches in length while fishing in 30 feet of water for catfish.

With the opening of the bass season we were pretty much too busy to make notes.

July 4. I notice that J. W. Clemens and party of Lansdale caught a nice string of bass. The largest, a largemouth, 16 inches, 2 pounds 3 ounces. (Not remarkable.)

July 16. A very good fishing day. Seven men caught their limit of bass. Others had good catches.

July 18. Mr. Korte, of Wilkes-Barre caught a 4½ pound pickerel and 3 nice bass. August 22, the same angler caught a 4 pound pickerel and "some other fish."

August 23. C. G. Baker and friend, of Hazleton brought in two largemouth bass, weights 3 and 3½ pounds. At different times Frederick Hansa, of Great Kills, N. Y., while fly fishing in the evening caught his limit of bass.

William F. Weingartner of Richmond Hill, N. Y., one day in late August caught 4 bass, each 18 inches long (one smallmouth and 3 largemouths). Two days later he caught 2 more of the same length.

And now a few "tall stories":

Ralph Alker, of Norristown, selected the right plug but—he didn't have a string to it. While he and his wife were plugging for bass near the Watson Point section of the lake, he decided to change his lure. He selected one from his box and when about to snap it on his line it slipped from his hand and fell overboard. It no sooner hit the water when a bass struck it. Ralph hasn't seen it since!

Helgramite brings home the bacon. Herbert Forster, of Rockville Center, N. Y., with the aid of his bait landed a fish. He reports that a helgramite he was using fastened its clippers so securely in the outside cheek of a sunfish that it was safely brought to the boat. He had to pull the clippers apart to release the fish. (I believe you published a similar item some time ago.)

Prof. Bartholomew and son of Williamsport, were plugging for bass on August 5. The junior member of the party hooked into a smallmouth bass which proceeded to break his line and run off with his plug. A few hours later the boy caught the bass and recovered his tackle.

Messrs. Tellenda and Sowinsky, two school teachers of Dickson City, different in one factor only. One of them lost the fish, the other hooked it and recovered the tackle.

The largest fish of the season was reported caught by a Mrs. Roberts, a 6½ pound bass. This was not brought in to our dock. I cannot vouch for it. Perhaps Warden Brink can.

I feel that I should add a few lines relative to the ice fishing, as last year I made it my business to check up on the fish caught whenever I had an opportunity to do so. Again as last year, 80 per cent plus of the pickerel taken were females. Of the perch reported to me, all were said to be females. Also it was common report that the fishermen were not nearly as successful as last season. In many instances, no fish were caught. Also small ponds which yielded good catches last year yielded practically nothing this season.



Mrs. Anna Burke, Girardville, is proud of this fine smallmouth.



## CLARION COUNTY BUCKTAIL ASSOCIATION: OUR CREED!

THE GREAT ARCHITECT OF THE UNIVERSE planned and builded miraculously, placing on land, in the air and in the waters, animal, bird, fish and vegetable life. In ignorance man has wantonly wasted and destroyed them. NOW THIS IS OUR AIM: We will sow more than we reap. When we cut down a tree, we will plant twenty. We will rear birds and animals; provide fields and forests, food and shelter for them. We will breed fishes in abundance and see to it that their water-homes are once more made pure and clean and so remain.

Oh, the exhilaration, the health and pleasure found in our great out-of-doors;

If you are a nature lover in any of its many fascinations—a lover of mountains and valleys, of trees, vines, ferns, wild flowers and rocks; of lakes, rivers and brooks; a hunter, a fisherman, a boatman, a swimmer or a camper, or like a bee, just taking a sip of delight, here and there, throughout nature's realm, we ask you to become one of us.

By M. M. KAUFMAN,

### SUPPORT THE BUCKTAILS

*Combined Strength Will Clean the Clarion*

## WHO SAID "WAR"

We feel that the following letter written to the editor of the *Evening Ledger*, Philadelphia, by A. Franklin Wehr of Lehighton certainly bears repeating. Wrote Wehr:

"Several hundred thousand anglers joined in joyous mood in opening the trout season. The farmer lad and the dignified Judge met on the stream, brothers under the skin and thrilling alike to the first trout caught, be he taken on the lowly worm or the gaudy fly. Then dull care was banished as that great army of Izaak Waltons began the quest of the elusive trout.

Though the world appears to be steeped in trouble, the remark of a veteran fisherman who has not lost his sense of humor is worth repeating here. Said he: "You talk of war! We can't go to war now when it's time to go fishin'."

## WOULD CONTROL BIRD PREDATORS

The reported heavy toll of fish taken from the Pymatuning by such birds as herons and loons brought a demand for action from the Crawford County Branch, Sportsman's Council.

Meeting in regular business session at the Bloomfield High School, Lincolnville, the council instructed its corresponding secretary, Dr. George Buehler of Linesville, to write both the Pennsylvania fish and game commissions and the United States Bureau of Biological Survey, regarding the matter. Removal of lawful protection from the birds in Crawford County will be asked, it was pointed out.

More than 200 members were present, with President Merle Bideaux of Woodcockboro presiding, as the council completed plans for its first annual spring banquet at Titusville on May 11.

## JUNIOR FISHING PROJECT PLANNED

Plans for establishing a junior fish pond at Watontown were completed at a meeting of the Watontown Borough Council.

During the past year council provided for the beautification of the old canal bed and construction of a deep pool of water over three blocks in length which was used as a skating pond during the winter. Now arrangements have been made to stock this section of water with fish. It is being done as a recreation

project and safety measure for the youngsters and only boys and girls under 16 years of age will be allowed to fish in the pond. Council agreed to furnish police protection.

## VERMIN CONTROL DRIVE NOW ON

The Board of Directors of the Apollo Association completed plans for the Vermin Control Drive which was scheduled to start on April 1st and will run to Sept. 26. T. A. Beck, is chairman of the committee which also consists of Lyle Clawson, Ab Parsons, N. B. Johnston and T. R. Gray.

Vermine to be killed are: snakes (all kinds), crows, hawks, weasels, owls, English starling, gray fox, blue jay and pine squirrel. The places where proof of kills may be submitted was not fully made up and will be ready at the next meeting. A prize will be given for the person killing the most vermin of each species.

## TO OUR READERS

A recent advertisement in a state newspaper mentioned the fact that PENNSYLVANIA ANGLER had recommended a fly known as the "Mickey Finn" as being an exceptionally good fish getter. Not only did the ANGLER fail to refer to this commercial fly in this manner but we have made it a policy in this magazine to recommend no commercial lures. If at times mention of a particular type lure is made this reference is purely of an informative nature and does not carry any endorsement of its fish taking qualities.

Nineteen boys were present at the junior meeting and were given twelve copies on life saving by the Metropolitan company.

## "FISHERMEN EVERYWHERE"

Fishermen in Huntingdon county are recovering from a bad attack of "troutitis"—that annual urge to cast a line on April 15, the first day of trout season.

Whipple's Dam and Greenwood, Pine Swamp and Spring Creek seemed to be the favorite spots for Huntingdon fishermen, although all streams in the county were literally crowded. Cold weather cut down on the catches considerably.

One fisherman said, "Whipple's Dam at midnight Friday night put one in mind of an amusement park. Boy there were fishermen everywhere!"

Harold Fisher, president of the Huntingdon Game, Fish and Forestry Association, caught the longest trout to be reported here, a 15 $\frac{5}{8}$  inch rainbow trout. He caught it in Spring Creek. Kenneth Pearson of Huntingdon caught a shorter brown trout, 15 $\frac{3}{8}$  inches, but much heavier.



This catch of pickerel and largemouth bass was made last season in a Pike county lake by Arthur Jarrett and Dick Hampton of Hatboro.



## BLAWNOX ON THE ALLEGHENY

(Continued from Page 7)

river. Then we unload the canoe and two fellows get in, ready to float, plugging all the way to camp. The other two fishermen stop here and there, plugging the eddies and riffles where they think they may get a strike. When it's about 9 A.M., the fellows with the car go back to camp, start getting the grub ready for the fellows who are floating down. When they float to a good eddy and get a strike along one shore they paddle up and float the opposite shore and cast. Where we make camp on the river there is usually a good pool so the boys at camp can have lots of plugging. The canoe is sighted, but it is usually an hour and a half before they fish down one side of the pool to the other end, around the island, and back up to camp. That gives the "stay at camp fellows" a chance to get the feed bag ready by the time the fellows in the canoe change their wading shoes and pants. Sure, one gets the feet wet up to the knees getting over the riffles if the river is low. But who minds that in July, August, or even in September if the weather is warm?

I have never yet watched a canoe come into camp after a float down the river but that the question, any luck, pops into my mind. I never seem to be able to wait until they pull the front end upon the shore and reach down for the stringer and show the catch. It is usually a yell out across the river when the canoe is on the lap around the island. "How did you fellows make out?" Sometimes it is a string of bass and sometimes it is a lot of practice and they yell back, "I threw everything in but my hat and it fell off and did no good," or they would say (if they did not catch anything) "We left them for you fellows on your trip!"

Then we fill the mattress cover with straw, and get some grub ready for a four o'clock supper, we also make eight sandwiches for a ten o'clock snack with coffee. Eating at four o'clock we are not bothered with little gnats, and mosquitoes. The two fishermen that floated down in the morning drive the car back to camp, in the evening, wade and shore fish while the other two float down. The evening trip is usually about 4 miles long. That accounts for Saturday.

Sunday we switch again; the two who come down Saturday evening take the morning float Sunday, and by Sunday evening the two that drove the car back have the tent and everything packed on the car with a lunch ready for the two that made the float down. We all eat a lunch, change to dry clothes and leave for home.

Four men leave the clubhouse here at Blawnox, Pa. (7 miles from Pittsburgh) Friday evening at 5 P.M., go up the Allegheny 65 to 130 miles, have two full days and two nights of fishing where there is a good chance of connecting with bass, come home Sunday night, all for the small cost of \$3.00 per person. The cost of transportation is \$1.50 per person. One of the party brings the groceries, cooking equipment. The grub usually costs about \$6.00. We think this is very reasonable and it gives every small wage earner a chance to go out every week end or every other week end. If you do not have a tent or a canoe there are flat bottom boats (john boats) that can be rented for 75¢ to \$1.00 a day. A room at any of the small towns on the River from Foxburgh up to Kinzua costs only about 50¢ and two



Justly proud of this 13 inch smallmouth bass and three 8-inch rock bass caught in Dunning's Creek, Bedford county, last season is Lester Yoder of Johnstown.

men could sleep in one room. Then too, one can get a flat bottomed boat hauled up the river fourteen or sixteen miles for \$1.00. This is a good full day's float (if the river is normal) from daybreak to dusk. Be sure to take along a gallon jug of water and a big, husky lunch.

During the morning float one man takes care of the boat from the back seat with a short paddle (which all the boat owners along the river have) while the other fisherman plugs from the front seat or bow. The man in the back seat will have lots of chances to cast as there are dandy eddies where the boat can move along slow before it hits the next riffle. You have seen those motion pictures of fishing on different rivers; the boat or canoe running swift riffles or rapids. The Allegheny River has riffles that will thrill any man and make his imagination go back to the raft floaters.

We have advertisements here at the club from other states showing pictures of their fishing streams. Pennsylvania has scenery that can match any that we have ever seen. At some places on the float down, a fisherman may not see a person for an hour at a time, if it is Saturday or Sunday; other days we have

floated down and not seen a person for the whole half day only a car or truck when the river swung close to the road. There are islands along the river with a small forest on them. There are just two big pools or eddies that a fellow has to row the boat through. There are also riffles where one has to get out and pull the boat over (that is the reason I like the flat-bottom boat; it slides over the low places better than the round bottomed boats). But there were lots of times when we had to use the round bottom boats as the flat bottom boats were rented out.

There are two canoes at the club; Addison Bowser and Walter Coyle are busy fellows handling the rear ends of their respective canoes in swift water, a trick which they master like an Indian. A float down the river in a canoe in front of Bowser, Coyle, Jack Thompson or "Doc" O'Brien who handle it, and tell the fisherman "Throw one over there close to that log, or between those two rocks!" is really something! These fellows are all big men and can anchor the canoe by sticking the paddle down to the bottom of the river. As the fishing is done mostly 25 to 50 feet from shore it is safe for everybody. There are some very deep places, of course, such as Thompson's Eddy, Tidioute Eddy, but if a man stays about 30 feet out from shore and uses a flat bottom row boat he is safe even if he cannot swim. We don't take anyone in the canoes that can not swim. Oh yes, we get wet—the river is high one week and low the next; maybe there is a rock sticking up out of the water that was under water last week; a rock will just graze the side and when a strike happens at that time we are in for a ducking up to the waist. Where the water is deep we take it nice and gentle.

There are men who go up with the fishermen who do not hunt or fish; they like to camp and hike over the mountain roads; take a float down the river and enjoy the scenery. Boy! they surely are always welcome! They get the grub cooked and do other little jobs that look big to a fisherman who has been out in a boat from daybreak to dusk. They are appreciated and nine times out of ten if they like to be out doors they want to be doing some thing like that.

A float down the river is not a steam boat ride; there is lots of work connected with it. But I am sure if you get a pal (a son or daughter big enough to handle a boat) and float down any fishing stream deep enough for a boat and plug for bass, pike or muskie you will not be satisfied anymore with rowing out to the foot of a riffle, anchoring your boat and sitting there still fishing. It does not make any difference how many times you float down



Straight Creek, an improved trout stream in Elk county.

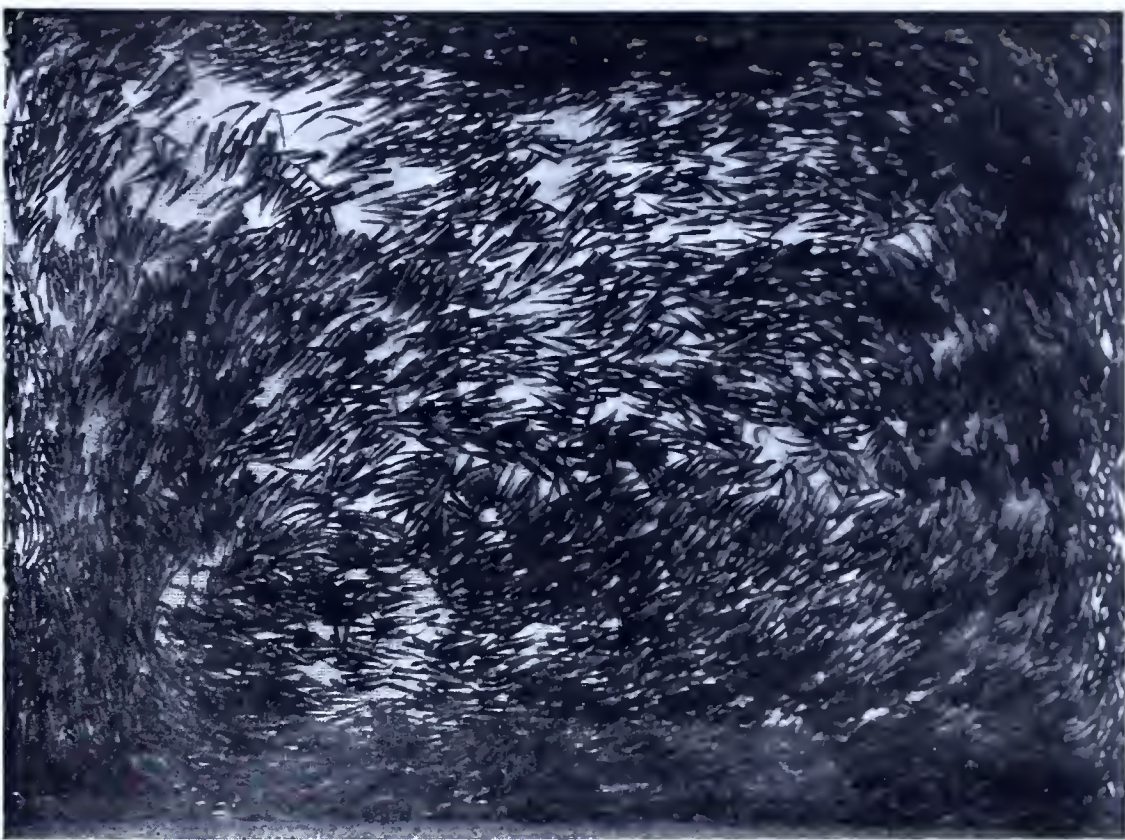


there is always something different to see or experience.

Every trip has its own little story. The fellows have caught a good many fish on floats and lots of fish have been turned loose to be caught again some other time.

There are some week ends we go fishing, make the usual floats and never a fish. Maybe a couple of strikes. Some fellows say that it is a lot of work to go to and still catch no fish. That is always a hard statement to explain to a man who is not a fisherman. There is an old gentleman living near here who goes fishing. When we meet him coming home in the evening with his lunch basket and fishing outfit we ask him "Any luck?" If he has a string of fish he replies the river is full of them, and if the answer is no luck, he says the river is fished out. Also there are some week ends we catch a lot of fish and miss plenty of strikes. Wading, a man can fish about one mile if he moves slowly and gives the river a good workout, as there are plenty of rocks and brush to get around and the river is plenty wide. Three hours in the morning and the same time in the evening is, I think, a good day's fishing. On a float one can fish anywhere from ten to sixteen miles a day. That is a lot of fishing water to cover in one day. When a fisherman who has not caught a bass on a plug takes one of these floats, hooks into a nice small-mouth with the boat going through some fast water, the fish fighting, the boat seeming to be going ninety miles an hour, he is usually a plug-caster from then on.

There are a lot of fishermen who will tell a beginner lots of useful kinks about casting for fifteen or twenty minutes when they are on a stream; but after that they dash away and get wrapped up in themselves. They do not intend to be that way, the fever just gets hold of them and away they go like that "Aye want to be alone" gag. With still fishing it is easy to stand the beginner on a rock or up to the boot tops in the water; hook a minnow, helgramite or soft shell crab on the line and tell him "If you get a strike, let him run, don't set the hook until he makes the second



Fingerling trout in hatching trough.

run, etc." When a fellow starts plug fishing he needs a lot more instruction than that. Our advice to a beginner is this; go to a good sports shop, get a good reel and a five and one-half foot rod. Sign up to pay in the layaway plan a few dollars every month. Then it is not long before he has a good outfit. If he gets the fever strong it will not be long before he is laying them better than the fellow that started teaching him. Blawnox is right along the Allegheny River, so we have a dandy place to take a beginner out in a boat and allow him to plug along the shore. Then the Pittsburgh Casting Club has a casting pool in Highland Park where a beginner is always welcomed. It is the back lashes or bird nests that worry anybody on a float; the boat is moving along and we are working like beavers to get it untangled because we are passing some dandy places where a plug should be falling. Tangles are the bane of beginners; they get more than a fellow who has had more experience, but we all get them.

The biggest bass caught last year in our outfit was by Ken Bowser, who has just started casting. The fish measured 19½ inches in length. We caught three others on the same float, none under 14 inches. We have pledged ourselves; if we kill any fish they must be 14 inches or longer; all others we place back in the water.

We are always out to get the young fellows interested in fishing and the outdoors. It does not make any difference to us if his father does not hunt or fish. All we want is the parent's consent to allow the lad to go to Butler Dam to fish with us; or up the river fishing on one of our boys' trips. The only wish that I have is that he will hook into a good fish; if he does land a good fish he is usually one of the gang. So take your son or a neighbor's boy on one of your trips; you may forget the trip, but the lad will remember it as his big adventure.

Of course, it takes hard work to get a club started: interesting fellows in the new

enterprise; trying to scrape together enough money to have a club room, taking all responsibility until things get running smoothly; trying to plan the business of the club so that everyone is pleased; but we feel that our club, as the result of our efforts was worth all the time and work necessary. Fellow Fishermen: WE STARTED A CLUB; you and your pals can do the same and have your fishing enjoyment doubled, yea, even tripled.

## FLY AND SPINNER FISHING FOR BASS

(Continued from Page 3)

hand, principally because a moment is set up. This moment is equal to  $W \times 3 \times A$ , or weight times distance.

Refer to the sketch, showing "the proper way to grasp a fly rod." and we see that there are two principal regions of the hand which must resist this moment. This determines the location of the resisting forces. The distances between them we will call  $H$ , and the forces themselves will be designated as  $E$  and  $F$ .

Now in fig. D, all the forces are shown.  $F = W \times 3 \times G$ , and  $E = F + W \times 3$ , from which it

$H$

will be seen that the hand is under a considerable strain. Naturally this will grow worse as the distance  $A$  increases. If you doubt this, try sliding the reel up and down on the rod.

As I mentioned before, the ideal condition would occur if it would be possible to balance the rod exactly at the grip, but, in the majority of cases, this is impossible unless the distance from the grip to the rod is increased. Wind resistance, length of line out, and a number of other factors enter into the problem, which makes it somewhat indeterminate, but the closer this balancing point is to the grip, the less strain will be exerted on both the rod and the caster.



Mr. and Mrs. F. Natase, Berwick, with 20½ inch brown trout caught by Joe Marsciano, Berwick on No. 10 fly.





A hefty bigmouth bass.

## CATCHES CLAM ON A CASTING LURE

From Steve Fromel, Wilkes-Barre angler, comes the following unusual report:

My friends, Michael Vermeda, Peter Mazicka and Stanley Beebe went to Cummings Pond with the intention to fly fish for bass, but the pond became very rough shortly after our arrival. My companions went out in the boat nevertheless and I decided to cast a spinner from the shore. I was casting a small spoon with a size 8 treble hook and two strips of red and white rubber as a trailer. Caught three bass on this lure, all undersize, which I carefully released and returned to the water. Toward nightfall, I made a cast and thought I was fast to a rock or stump. When I reeled in, to my amazement I had caught a clam. It had one of the barbs on the burr and part of the rubber rind inside the shell. My friends and I were certainly surprised to have a thing like this happen.

We can also report several other incidents that occurred last spring and summer while fly fishing for trout in the Lehigh River. We hooked several watersnakes in the back while they were swimming across the stream and immediately disposed of them. Peter Mazicka caught a large watersnake on a bass fly while we were fishing in Cummings Pond. This snake was sunning itself when the incident occurred. These yarns are the absolute truth and we intend to back them up.

We are ardent readers of the PENNSYLVANIA ANGLER and we all agree that it is the best fishing magazine money can buy.

## ANGLER BELIEVES IN SAVING BASS

We have it on good authority that Mike Obercash of Harrisburg, a member of the Harrisburg Hunters' and Anglers' Association, not only "adopted" a big bass that he landed last season but released the fish the day after the close of the season to the water from which it was taken.

Our informant, Johnny Day of Harrisburg, reports that Mike landed a smallmouth bass tipping the scales at  $4\frac{1}{2}$  pounds in the Juniata river last season. He managed to get the bass to his home, alive and in good shape, kept the fish in a washtub until assured that the last bass fishermen had packed the last lines following close of the season, and then carefully released the big fish at the identical spot from which it had been taken. Dave Howe, also of Harrisburg, also backs this one, says Johnny.

Don't worry too much about what lies ahead. Go boldly forward as far as you can see. When you get there you will see further.

When you've done your best, you feel pretty good, don't you, whether you've made any money out of it or not?

If you can't afford a real vacation this summer, try a Scotch substitute: Remain comfortably at home and let your mind wander.

## TROUT NURSERY PONDS RESTOCKED

Arrangements were made to drain the pools at the Laurel Hill trout nursery, above Rector, on Sunday, May 14th, and restock them with trout.

Ten thousand fingerling brown trout and an equal number of rainbow trout will be placed in the pools.

Lynns Run will be stocked heavily because it is fished continuously throughout the trout season.

Lynns Run will be closed for a period of five days after stocking, in accordance with the fish laws.

The Fish Commission will have a representative present to supervise the draining and restocking of the pools. The commission will also provide all of the necessary equipment.

## WEST CHESTER CLUB HEARS OF STOCKING

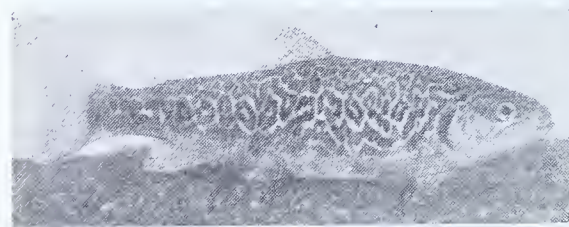
The annual meeting of the West Chester Fish and Game Association was held in the Municipal Building, West Chester, Monday, March 6th. A capacity attendance of members turned out.

The report of the stocking of fish and game during the past year was read, following which Roland S. Grubb, Esq., a leader in the fight against stream pollution and conservation of all forms of wild life, spoke in connection with the National Wildlife group and their work.

The election of officers featured the annual meeting, and Roland S. Grubb was chosen to succeed Walter Ross, as President. Vernon Hoffman was re-elected Vice President of the Association, while Fred C. Dutt was again named Secretary, and Eugene Walton retained his post as Treasurer. The three members of the Executive Committee, named for two years, were John Cotter, Wm. Ingram, Jr. and Marshall Brown.

The retiring President, Walter Ross, thanked the members of the Association and his various Committees for their cooperation during the past year.

At the conclusion of the business meeting, motion pictures of fishing in Canada were presented through the courtesy of the Canadian National Railways.



This hybrid trout, a cross between a brook trout and a brown, was hatched at Reynoldsdale hatchery, Bedford county.

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HARRISBURG, PA.

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# AMATEURS TOOK THESE "LUNKERS"

(Continued from Page 9)

of nearly nineteen inches, between three and four pounds in weight.

His first bass, his greatest thrill, the result of steady casting for three long days, the final but adequate reward for sticking to it. His joy knew no bounds. At last—he was a fisherman! From that pool he took two more quickly and I took another, all between fourteen and sixteen inches. Every fish taken on the three trips succumbed to the propellered surface plug, and so we proceeded to christen it on the journey homeward, "the killer".

From then on it was nip and tuck between us for the honors on every trip. He was taking them, taking them big, taking them consistently. He fished like a veteran, with all a veteran's luck, and kept only a few of the best in each catch.

An absolute beginner, with only a month's experience!

One of the amazing things we noticed with all the fine bass we were catching on our newly christened "killer plug" was that we were never bothered with small bass hitting it. Every strike was a BIG bass. Amazing also is that on all our trips last year, we ran into dozens of fishermen, but our catches were so superior there was no comparison. We can truthfully blame it on the plug, since we didn't run onto a fisherman using one like it.

Listen to this. One day the bass seemed to take anything. Every one we met had fish. My beginner friend landed the three large ones shown in one of the pictures here and I had the six shown in one of the other pictures. My six weighed over twelve pounds. This was one of the few times that I succumbed to the "limit urge." His largest was another nineteen inches. If they weren't over thirteen inches that day we turned them back to grow up. But one of the sad things we observed were many illegal fish that had been badly hooked dying along the banks. I don't think a bass we hooked and returned failed to live. We also had bigger and nicer bass than any other catches we saw.

Many times while on these trips we would encounter several fishermen fishing the same pool. Mostly live bait users. Invariably as we moved along we seldom missed taking a big lunker or two with us; the bait fishermen took the smaller ones or none at all. It seemed when we met other artificial lure users, they would have nice fish to show too, although not so nice as ours. Please do not misunderstand. This is not said to brag. The credit goes entirely to the "killer plug" that big bass could not seem to resist.

After such phenomenal luck on the Allegheny, we began to wonder if we could take as nice fish anywhere else. We could and did. Several trips to Pine Creek, Clinton County, produced some beautiful pickerel. Two trips to Lake Wallenpaupack resulted in the fine catches shown here; bass, walleyes and pickerel. Other streams too.

The picture showing G. A. Stewart and myself was a "return engagement" we had at Wallenpaupack in 1938. An accomplished fisherman and an ardent devotee of all branches of the art, he would probably deny being included in the "expert class," but you can take my word for it, he chucks a mean lure, accounting for the bigger ones in the picture.

The other trip to Wallenpaupack was late in the fall with my beginner pal as a partner. The catch is the one shown spread out on the



Bass to be proud of. Credit the plug again.

opened newspaper. Every one of these was taken on the old "killer" and a few of the bass went over four pounds. They were taken in two days, two "bad" days I should say, as we were met on arrival with clouds of gloom that the "fish aren't bitin'". Undaunted, and with supreme confidence, we unpacked our tackle and supply of "killers" and went to work.

Of the several dozen fishermen having the same landing as their base of operations, our catch for the two days (in number, only a few being killed) equalled the combined catch of all the others. Again, do not misunderstand that as boasting. It is a statement of fact and the credit as usual goes to a single artificial lure that the fish went after crazily. To illustrate, here is an example.

One evening we set out for walleyes. We were told to use a phosphorescent underwater plug by experienced and successful walleye fishermen. It was the only thing that worked. Upon explaining that we intended to use our double-propellered floater, we were assured it was a waste of time, it was too big, it was this and that, walleyes had never been taken with such a thing. But we persisted. By moving the "killer plug" very slowly and easily on the surface of the water, with just a tiny gurgling coming from its dual propellers, we got plenty of action, landing three walleyes eighteen to twenty-four inches and a four pound bass.

Here is a brief summary of the accomplishments of our favorite lure last year, and what it did for a group of amateurs. It was a consistent taker of "lunker" bass, pike and pickerel. It enticed hundreds of strikes, but never a strike from an illegal bass. It brought to the net more than one hundred game fish, all well over legal size and many to "write home about". It never let us down, we never returned "skunked" but always had a few nice ones for our trouble. It worked practically everywhere we went, all days seemed good days. It induced savage strikes at most times during the day, morning, noon, and night.

Finally, I want to assure the thousands of new and inexperienced anglers all over the

state that there was no special art, no trick, no magic, no sleight of hand required in creeling these fish other than what appears here. We were probably lucky in the discovery and use of this particular lure. You may have another, a better one. But if you would like to know the name and maker of the plug we used, to try it yourself, simply write to me in care of THE ANGLER and I will be glad to tell you. Whatever you do, remember you too will find you can catch the old "lunkers" if you devote yourself to the catching.

In conclusion, to this new army of anglers, I want to make a friendly and frank statement. To wit:

Artificial lures at all times will take bigger and better game fish and more of them with less trouble and more enjoyment than any live lure.

If you will but give that statement the sincere trial I hope you will—and leave the fish food to the fish—I promise you more thrilling moments on your 1939 fishing expeditions than you believed possible in a life time. Amen.

## "ANGLER" SUBSCRIPTIONS GIVEN TO LIBRARIES

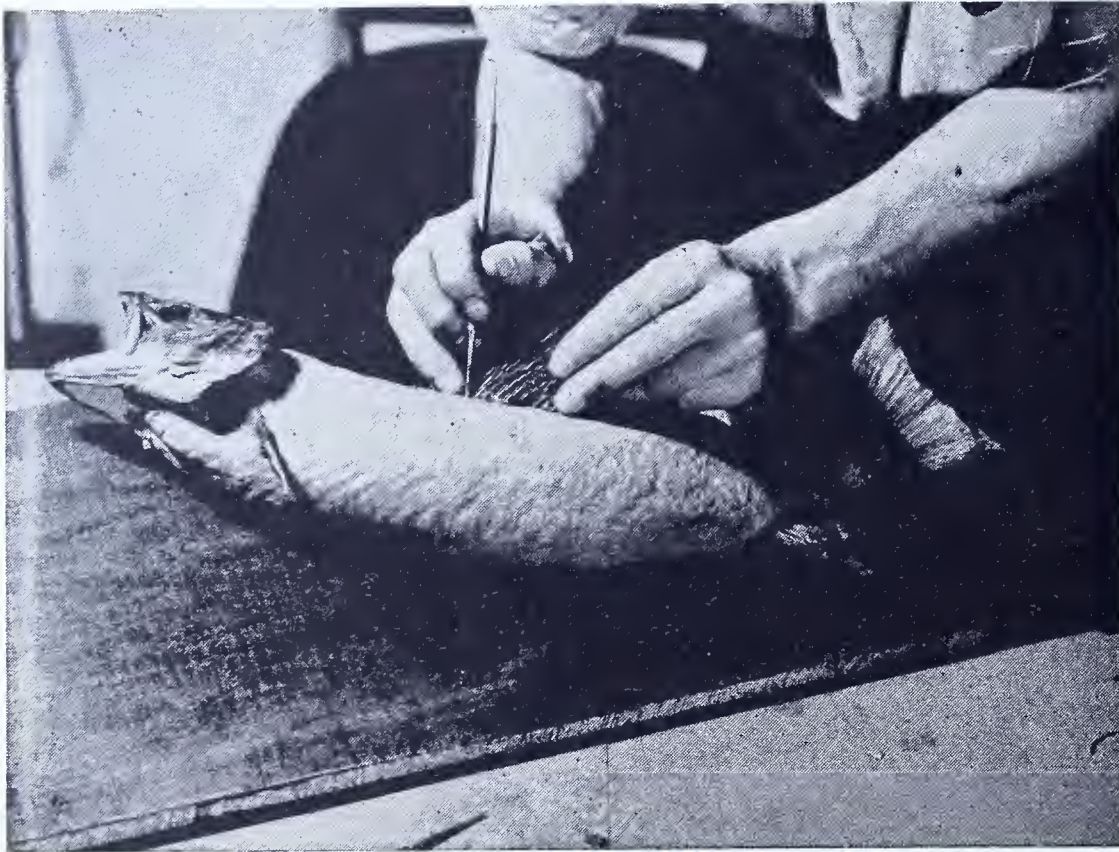
In promoting conservation education, the Coraopolis District Sportsmen's Association has been subscribing to both the *Pennsylvania Game News* and the *ANGLER* for libraries in the association's district, according to word received from P. M. Kortz, secretary.

The following letter to the association from Geraldine Ann Helm, librarian for the Coraopolis Public Library, indicates that the plan has been meeting with definite success:

"The members of the Library Committee wish to express their thanks to the members of your club who so kindly renewed the *PENNSYLVANIA ANGLER* and the *Pennsylvania Game News*.

"These magazines have become a source of pleasure to many of our readers, who will certainly appreciate their continuance. We are grateful for every opportunity to make our project an up to date Library."





When the modelling operation is almost completed, the head and fins may be attached temporarily to permit a general checking up.

## PISCATORIAL PLAQUES

(Continued from Page 5)

tendency towards dullness in conjunction with other colors. A mixture of red, blue and yellow, with the latter predominating, makes brown. White with brown brings forth tan and buff. Equal amounts of red, yellow and blue produce dark gray. Adding different quantities of white to gray offers many neutral shades.

Squeeze a small portion of each color onto a piece of glass. While mixing pigments, add

a brushful of linseed oil occasionally. This will reduce their consistency, causing them to blend easily and spread evenly. Apply dark colors first, then work toward lighter tones, blending the adjoining edges of one to another with light strokes of a clean brush. To determine whether or not two colors are identical, hold one against the other. The slightest difference will be readily noticed and, in that manner, you can closely match the delicate tints and shades of the color reproduction. Unsatisfactory colors, mistakenly applied, are best remedied by allowing to set and then repainting.



After added improvements and thorough drying, the form is rendered smooth with sandpaper. Head and fins are attached and modelled permanently in their proper location.

Due to the presence of fish oil, which prevents varnish from drying, the head should be omitted in this operation. However, two coats of varnish over the rest of the plaque will impart a natural, watery texture. Later when the oily ingredients have evaporated, the head may be treated likewise.

Attach a screw-eye to your handiwork and give it the place of honor in your den.

Now, . . . go catch a bigger fish!

*Note—For the four finishing processes in making fish plaques, note illustrations on this and the following page.*

## THE BASS CRISIS

(Continued from Page 11)

been selected as the site for the bed by a sweeping motion of the tail, and frequently carrying off small objects such as sticks in its mouth. The nest, saucer shaped, is usually from 24 to 30 inches in diameter, and the eggs when deposited are adhesive, clinging to the clean pebbles and sand of the nest. While the eggs are hatching, the male fish keeps a constant circulation of water over them through a swift fanning of the pectoral fins and a rapid sidesway of its body.

When the water temperature in a stream is over 60 degrees Fahrenheit the eggs may hatch in from 5 to 8 days, and the young bass, when they emerge from the eggs, are black in color, the cumbersome yolk sac attached to the under forepart of the fry making them appear not unlike tiny tadpoles. We have noted that it has required the baby bass on occasion from 5 to 8 days to absorb this sac, after which they rapidly assumed the shape of the adult fish. Should a sharp drop in water temperature occur when the female is ready to drop her eggs, spawning may be retarded. Densely muddy water with its accompanying silt may be caused by a sudden heavy storm on a bass stream watershed, a definitely unfavorable condition, since silt settling over the nest may serve to smother the delicate embryos in the eggs. Continually muddy water also may serve to discourage the adult fish and cause it to leave the nest. Clear water and fairly constant temperature bode well for successful bass spawning.

In this article we have attempted to bring out one major point, that nature must first of all be taken into consideration if the present bass crisis is to be passed successfully. Unless we recognize the pressing necessity for a rapid restoration of the diminishing supply of forage in many of our bass waters through restocking with organisms such as the crayfish upon which the bass relies, we can look forward in the not too distant future to constantly deteriorating bass fishing. Why not face the facts?

Visitor: "If your mother gave you a large apple and a small one and told you to divide with your brother, which apple would you give him?"

Johnny: "D'ye mean my big brother or my little one?"





Application of color transforms the assembled specimen into a realistic, active replica of the original fish. Boiling water effects may be added by further modelling as shown below.

## DOG RESCUES OWNER FROM PIKE COUNTY LAKE; HONORED BY ROTARIANS

A dog which has become a national hero and the man he saved—Bugs, 50-pound foxhound and Harlan Place, steward of the Beaver Run Club in Pike county—were honored at a meeting of the Stroudsburg Lions Club at the Penn-Stroud Hotel. Mr. Place's recital of his rescue by the dog he had known but a day proved one of the most gripping stories nicely told, the members of the club have had the pleasure of listening to.

Previous to the address of Mr. Place, the club sang the Victory song of Notre Dame, substituting "Old Bugs Van Vliet" for "Notre Dame" in honor of the occasion. Glen Lowry read a poem written by James Riddick, of Oceana, Va., entitled, "Bug's Soliloquy." Mr. Loughton saw an account of the rescue of Place in a Virginia newspaper which inspired the lines, which were very interesting.

Lion Noble Salathe was in charge of the program and presented Mr. Place who told the story of how he had secured the dog and that of the thrilling rescue.

Mr. Place stated that his friends had advised him to give the story to The Stroudsburg Record, where it first appeared, in order that people might have a better understanding of dogs and treat them more kindly. He paid high tribute to the sportsmanship of Stanley J. Van Vliet, of Buck Hill Falls, owner of Bugs, who had given the dog to him and then gave the story of the rescue. He spoke in mild tones and commonplace terms, making a lasting impression on every one.

He told how Mr. Van Vliet had invited him to visit his place and pick out a dog. Going there, the owner was absent, but his son pointed out Bugs as the dog he was to take. Mr. Place could not believe it and left without the animal. However, a telephone conversation brought out

that the boy had been right and Mr. Place went over and got the dog. On reaching home he changed his clothes and took the dog out on a leash so that master and dog could get acquainted.

Mr. Place said that he went out to inspect his traps and eventually reached the lake and went out on the ice he had crossed before. Of a sudden he broke through. The water was not very deep and he didn't think much of it, in fact almost bounced out. However, he went down and on coming up tried the other

side of the hole and found he could not reach bottom and came back to the point where he had broken in. He caught hold of the strap on the dog. The hole got bigger and he let go the strap.

The imperiled man stated that he again got hold of the strap and tried to pull on it and the dog tumbled in the water on Place's head. Place pushed the dog out. The dog faced him with the fore feet on the ice. Place called for help, but no one came to his assistance. He called again and was getting stiffer all the time. The day was not very cold and the dog was able to dig its claws in the ice.

"Finally, I got hold of his right foot with my left hand. I got his ear in my mouth and was able to get my right foot on the ice. Gradually I worked out the other foot, thinking 'My God, Buggie, are we going to make it?' I slid over the ice 100 feet on my stomach. I was so exhausted I slid the strap on my wrist, my legs were like sticks.

"As I slid along the dog stopped and I saw an open hole 20 feet away. If the dog had not stopped I might have gone in again. We changed our course and finally reached the house," said Place. He then told of how his wife, the only person in the house had assisted him and the next day he came to Dr. Rosenkrans Hospital in East Stroudsburg for treatment.

A well-known official of the Illinois Bell Telephone Company was rudely aroused from his slumbers by the ringing of the telephone. After bruising his knee on a chair, he reached the phone.

"Hello," he growled.

"Are you an official of the telephone company?" asked the voice.

"Yes, what can I do for you?"

"Tell me," said the voice, "how it feels to get out of bed at two o'clock to answer a wrong number."



A fine wire will hold the lure that took him, before his gaping jaws. Now, hang him on the wall of your den and plan a fitting ceremony for the unveiling of your handwork.





## HERE <sup>AND</sup> THERE IN ANGLERDOM



Despite the cold weather and high water during the early part of the trout season, writes Warden R. C. Bailey of Youngsville, Warren county, more anglers were out on the streams than ever before. A large number of trout have been taken, most of the catch being rainbows of nice size, several from 16 to 19 inches in length. Salmon Creek, Coon Creek and Tubbs Run in Forest county furnished good early season catches and Pine Creek, Brokenstraw Creek, Little Brokenstraw Creek and the West Branch of Tionesta Creek, Warren county, were good. Brown Run, Farnsworth Run and Four and Six Mile Runs produced some good catches of brook trout while excellent catches of both brooks and rainbows were scored in Minister Run. The section of the West Branch of Tionesta Creek which was closed for several years has been heavily fished. Not many fish have been taken from this stream but those reported were big brown trout, ranging in size from 12 to 18 inches. Osborn Olson of Sheffield has been one of the successful anglers on this stream. Included in his catches to May 1, were one 17 inch, three 16 inch and one 15 inch brown trout.

Joe O'Byrne, hunting and fishing commentator for Radio Station KYW in Philadelphia, has formed a novel club with the idea of increasing interest in conservation. This club, founded by Joe in 1937, is known as the KYW Hunting and Fishing Club. Membership cards are issued free upon request. We think the following Sportsman's Creed which appears on the back of the nicely engraved card hits the nail in the head. "I believe in fair play and conservation—in the protection of the female of all wildlife, and in the preservation of our woodlands. I believe in the prevention of stream pollution and in the observance of all fish and game laws, to the end that posterity shall receive its full heritage of wildlife, and the enjoyment of the great outdoors in the years to come."

Under the supervision of Stanley Seymour, Mainsburg teacher and Boy Scout master, the following Boy Scouts assisted in planting willows along Corys Creek, Tioga county, for a distance of one mile, writes Warden Leland Cloos of Middlebury Center: John Rice, Clifford Rice, Edward Rice, Robert Welch, Paul Welch, Robert Every, Wilbur Every, and Robert Phillips. These boys, all members of the Sullivan Rod and Gun Club at Mainsburg, range in age from 8 to 12 years. Circulars



G. W. Gelwicks, president of the Mechanicsburg Sportsmen's Association, displays a three-pound smallmouth bass that he landed last season on Conodoguinet Creek, Cumberland county.

prepared by Harry Weber, Fish Commission member, have greatly increased interest in this phase of the fish conservation drive, and a number of clubs in Tioga county as well as schools have taken up the work. This circular is available from the Fish Commission without cost.

Fishing minnow in Little Pine Creek, Lycoming county, Charles Glasser of Williamsport caught five fine brook trout, the natives averaging close to 12 inches in length.

A brookie weighing one pound 6 ounces and measuring 15 $\frac{3}{8}$  inches in length was caught at Mountain Beach near Williamsport by Mrs. Myron Trumbower, that city, according to Warden Carl Bidelsbacher.

According to Dick Fortney, outdoors editor, *Williamsport Grit*, many fine brook trout have been taken in Lycoming waters this year.

A creel of 10 fine trout, ranging in length from 12 to 17 inches, was taken in a Northampton county stream (name not divulged) by Clifford Rice of Easton late in April. Rice used minnows in the morning and switched to flies in the evening to score his catch.

That anglerettes as well as anglers possess that very vivid power of exaggeration on occasion is illustrated by the following report by Carl Thomas of Dormont. It seems that Mrs. Betty Thomas returned from a trouting trip on April 30 with a report that she had caught the world's largest trout. The length of the fish was variously reported at from 6 to 8 feet, and its weight 30 pounds (wet). But along comes Carl with the statement that the fish was a 10 inch brown trout.

Warden Joel Young of Fullerton reports that on opening day of the trout season approximately 6000 trout were taken from waters in Lehigh county. Boy anglers, under 16 years old, scored a heavy percentage of the catches. Unfavorable weather curtailed catches.

Ken Reed, former member of the Fish Commission and now general manager for the Izaak Walton League of America, is a staunch champion of the brown trout for Pennsylvania waters. Writes Ken: "I think there has been more sentimental foolishness wasted on the brook trout in the face of an adverse record than on any other fish. We might as well recognize the fact that in all but the Little Rhododendron Brook that brook trout fishing is a thing of the past in hard fished waters. Not only can the brownie stand more high water, low water, warm water and generally adverse physical conditions, but he can stand hard fishing much better than the brook trout and that is a most important consideration in Pennsylvania. On top of that, I'll stand up on my hind legs any day and maintain that a brown trout is a better game fish than the brook."

A double on trout was scored by Robert Martin of Ligonier while fishing a stream near Ligonier. Martin landed two trout, one 10 inches, the other 11 inches in length in one cast. The catch was scored with flies.



# *Streamlined Bass*

By ROBERT F. KEAGLE



I know a lake not far away by miles or in my dreams,  
A stump infested, marshy lake fed by spring cooled streams,  
Reedy shorelines, lily pads, sunken logs galore  
And filled with bass the like of which I never saw before;  
They seem to differ greatly from others of their kind  
And I've about concluded that they must be streamlined.

The same white under carriage, the same bronze turret top,  
The same quick eye and crafty brain to bid them go and stop,  
But when you tie into one their power seems enlarged  
Like a modern motor that has been supercharged;  
Yes, there is a difference I reiterate  
As though some super-engineer has brought them up to date.

I never really landed one, the tackle always breaks,  
Up until this writing I don't have what it takes;  
But I'm studying the latest books on piscatology  
And I'm going into training with utmost secrecy  
For I'm full of stubborn purpose not to let next season pass  
Without my having stringerized one of those streamlined bass.



## **Mr. Bass Fisherman:**

**More food for bass in your pet stream will mean better bass fishing. It's the key to your future sport. Help the cause along. Use live bait sparingly.**



# PENNSYLVANIA ANGLER



COMMON SUNFISH

JULY 1939

TEN CENTS



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BOARD OF FISH COMMISSIONERS



CHARLES A. FRENCH  
Commissioner of Fisheries

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## EDITORIAL

### BROOD STOCK VITAL IN BASS CULTURE

ONE of the important factors in fish propagation is to have available a dependable continuous supply of proven brood stock. For a number of years the Board's bass work was handicapped because they were not successful in raising the needed parent fish under hatchery conditions, and had to depend entirely upon fish taken from the wild state to produce the fry for stocking the nursery pools. This method was far from satisfactory. Bass transferred from wild waters to hatchery ponds, were rarely induced to take artificial food, with the results that minnows and other live natural foods had to be provided,—this very often was difficult and costly to obtain. They could only be depended upon to produce an egg crop the first season. Those held over for use the second year proved in most cases to be sterile. This was probably due to food shortage and the work of internal parasites.

Most fish living in a state of nature are carriers of various kinds of parasites. Under natural conditions these organisms may not cause the fish any serious harm. However when fish so infected are held under crowded Hatchery conditions, a serious loss may be expected. This loss is not necessarily limited to the fish brought to the hatchery, but may result in spreading the organisms among the hatchery pools, causing a high fish mortality.

About eight years ago the Board retained a number of fingerling small-mouth bass at the Pleasant Mount Hatchery, with the thought of growing them for brood purposes, and each succeeding year, the same practice has been followed, so that at the present time there are between five hundred and a thousand hatchery reared bass reaching sexual maturity each year. This number has been sufficient to take care of the normal loss of the parent fish, and also furnished those needed, due to hatchery expansion.

The small-mouth bass used for reproduction purposes at all of the hatcheries are hatchery reared, a number of which have just passed through their fourth spawning year. These older fish are in a perfect condition and are preferred as brood stock to those of four or five years of age.

Pleasant Mount Hatchery is one of the proven bass plants both in the production of small-mouthed and large-mouthed fingerling, and under the present day system of management, little difficulty is found in growing small-mouth bass to adult size. The reverse, however, has proven to be the case with the large-mouthed bass, and annually, for seven years, the results have been a failure. The unsolved mystery is that while the Bellefonte Hatchery is outstanding in the growing of fingerling small-mouth bass, efforts to grow the fish to maturity, have not been any too satisfactory, while the large-mouth variety is being grown with marked success.

The domesticated bass for brood stock is important because it permits selective breeding to be carried on with the thought of improving the fish to the same or even greater extent than has been done with trout. It gives a fair assurance of an annual egg crop. Where bass had to be obtained from the wild waters each year there was an uncertainty of obtaining the number needed. Feeding the adults is greatly simplified, as the domesticated fish feed upon artificial food, and the ever-present danger of introducing disease organisms in the hatchery from wild fish is eliminated.

*C. A. French*  
Commissioner of Fisheries



# HAIR MINNOWS AND STREAMER FLIES FOR BASS

By WILLIAM R. WALTON

THE popularity of the streamer fly in all of its many forms has grown rapidly in recent years. These flies are effective and easy to cast except in windy weather. Even then the addition of a small spinner, preferably brass or gold in my case, renders them practicable during a gale when the wise fisherman will seek some less enjoyable occupation.

In the course of fishing for large mouth bass in recent years, I have found that a hair minnow constructed as hereafter described, has proved not only very effective but has landed many fish of a size large for local waters. It is tied on number 1 to 3 model perfect hooks but smaller sizes may be used.

The body and "wings" are constructed of the tail hair of the impali (impala) antelope which may be purchased either in the white, or dyed standard colors, from dealers in fly-tying materials at a reasonable price. This hair is somewhat finer in texture than that of our native deer, has a life-like action in the water and dries quickly after removal therefrom.

A long shank hook may be used if preferred but I prefer the standard length for this type of lure as it has been my experience that bass grasp the head of such a fly first, and when the hook barb is not located close enough to it the fish fails to hang.

One of my favorite hair minnow patterns is white belly with a scarlet red back; red hackle with jungle cock shoulder as illustrated in figure 1.

Lemon yellow belly with a black back is another effective combination. In this case black bear hair is satisfactory for the upper works.

This minnow is tied in the ordinary way except that for hair flies I recommend the application of plenty of waterproof cement (procurable at the "5 and 10" under many names) on the hook ends of each section of the hair as tying proceeds. When hardened, this cement attaches the hair to the body so that even the rows of fine teeth of "old bronze-back" cannot tear it loose.

On the No. 1 standard length hook there should be at least one half inch between the eye of the hook and the base of the hackle, including the tied-off head. This distance should be increased to three fourths of an inch on a long shank hook. This space is for the finished head which is then built up of the substance called plastic wood. This is merely finely ground wood-pulp partially dissolved in a nitrate solution. It is entirely waterproof, may be molded with the fingers into any desired shape while soft and is tough and hard when perfectly dry. A little experience is necessary in handling it readily as it sets very rapidly and sticks to almost any surface including the fingers as you will soon perceive. However, by wetting the forefinger and thumb with saliva before attempting to shape it, this difficulty is avoided. By working rapidly the head may be quickly molded roughly into shape. In this operation be sure to place the head mostly above the shank as shown in the illustration.

Otherwise, the head may serve to decrease the clearance between the shank and the barb sufficiently to prevent hooking the striking fish—a most important consideration as I have learned to my sorrow in partly hung fish.

Such heads dry hard within a few hours when placed in a warm place. It is advisable to construct them in two layers, most of the material being applied at the first operation and the hollows or uneven parts filled or smoothed with additional material an hour or so later. When perfectly hard the excess material may be whittled away with a sharp knife and afterward smoothed perfectly with fine sandpaper. The finer sizes of garnet paper, 7/0-240, is even better for this purpose. Any plastic wood which may remain on the fingers may be removed by a rag wet with nitrate lacquer thinner purchasable from paint stores.

In finishing the heads of hair minnows the eyes may be painted on but I prefer to insert number 3 to 4, glass, birds' eyes having a yellow iris and black pupil. These may be purchased from dealers in taxidermists' supplies at not to exceed 3 cents per pair.

The operation is simple, viz: holes slightly larger than the eyes are drilled in the hard material to receive them; a little waterproof cement is placed therein and the cavity is immediately filled with fresh plastic wood. The eyes, which come in pairs mounted on soft iron wire, are then cut off leaving about one sixteenth inch of wire on them, and pressed firmly into the soft material in the cavities. The excess material thus forced out must be quickly removed with a small flattened wire tool and the edges smoothed down while still soft. This completes the operation and when firmly set much force is necessary to disturb them. These glass eyes add considerably to the attractiveness of this lure. Plastic wood and nitrate lacquers are highly inflammable, so when working with them, *do not smoke*.

I usually paint the heads of such hair minnows in imitation of a minnow, with a white throat and green upper parts. A dash of scarlet red at the gills is a useful addition. Although the nitrate lacquers are very convenient in painting such heads, as they set quickly and produce a high gloss, they are not so durable as the better enamel paints which contain tung oil. These are relatively expensive but the extra cost in this case is justifiable.

A layer of plastic wood applied to the tied-in heads of ordinary hair flies or other large flies, adds greatly to their durability. After it is smoothed down as previously described they may be painted any desired color and they take enamels beautifully. In covering the heads of such flies with the plastic wood, a lump of it is applied first to the under side of the shank and then worked around and upward with the moistened fingers. Any excess may be pinched into a sharp ridge (see figure 2) at the top of the head and left there to harden, when it may be whittled down into the desired lines. This is much easier than to attempt to remove it while soft.

The hair minnow above described is practical effective and very durable. The principal wear on them is caused by the scratches produced by the teeth of the fish and can be repaired easily when the tackle is overhauled.

In tying this or any other fly, examine first the soundness of the hook used. Even the best of hooks procurable may have their imperfections and by all means *sharpen the points* even though they may seem sharp. For this purpose nothing I have found equals the small hard, "lilly white" Arkansas oil stones made for sharpening wood carving tools. With such a stone a keener point can be put on a hook than by any other means readily available. As compared with the ordinary fine carborundum stone, as made for sharpening hooks, the Arkansas stone is as the modern hollow point hook is to the spear point.

Among the hair streamer flies of ordinary shape that have been somewhat ballyhooed is one that somebody has named the "Micky Finn". This is really a hair version of the old and well known Colonel Fuller, i.e. yellow with a red center streak, deservedly popular among anglers for small mouth bass and which was demonstrated to the writer many years ago by his old fishing pal Walter B. Powell of Waynesboro, Pa., than whom there is no better fly fisherman. I say *fisherman* not tournament caster, not to throw any dead cats at a game that "is fine for them as likes it". But the Micky Finn differs from the Col. Fuller in that it has a flat-tinsel body overwound with oval silver tinsel. It is a rather easy fly to tie except for the oval tinsel and if there exists a meaner, cantankerouser material to handle, not excepting silk floss,—you tell'em. It consists of some loose, slippery fibers, overwound spirally with thin flat tinsel. When cut, it unwinds faster than the liberated mainspring of a Waterbury watch. When you grasp the end of it and begin to wind it on the body, the tinsel slips over the slick silk core and by the time the fifth turn is applied this is likely to consist mainly of white silk and in your grasp is a mess of crinkled up tinsel.

I have found that this difficulty is overcome largely by soaking the lengths of oval tinsel briefly in clear nitrate lacquer and drying before attempting to tie it. This has the additional advantage of delaying tarnish subsequently. A knot tied in the loose end is a real help in grasping it. Oval tinsel is a relic of the Victorian vintage of salmon fly-tyers and should be abolished. In case you can find suitable sizes of silver wire, this is not only much stronger but quite as good and easy to tie. Some day I hope we shall have among other much desired improvements, chromium plated tinsel that will defy tarnish indefinitely.

Practically every book on fly-tying in my not so small collection, cautions the reader not to handle the tinsel with the fingers as this causes tarnish. However, if there are on the American market hackle pliers that will grasp tinsel securely enough to stand the strain of winding they have evaded me as I have tried at least



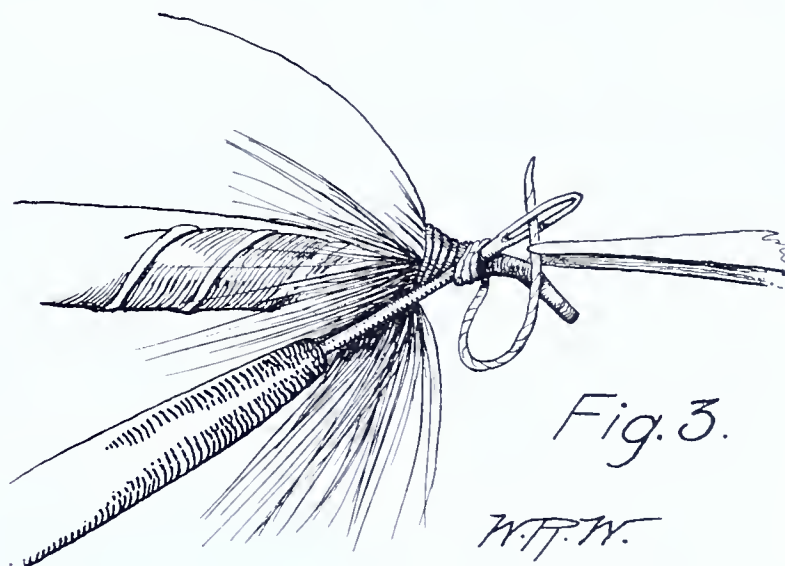
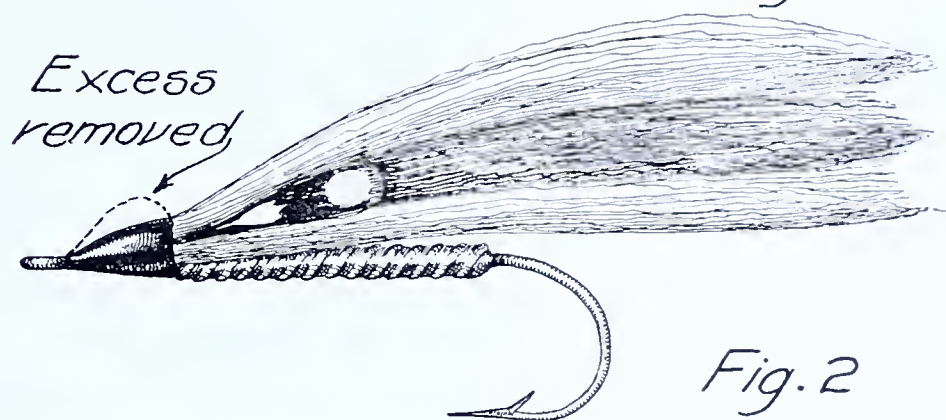
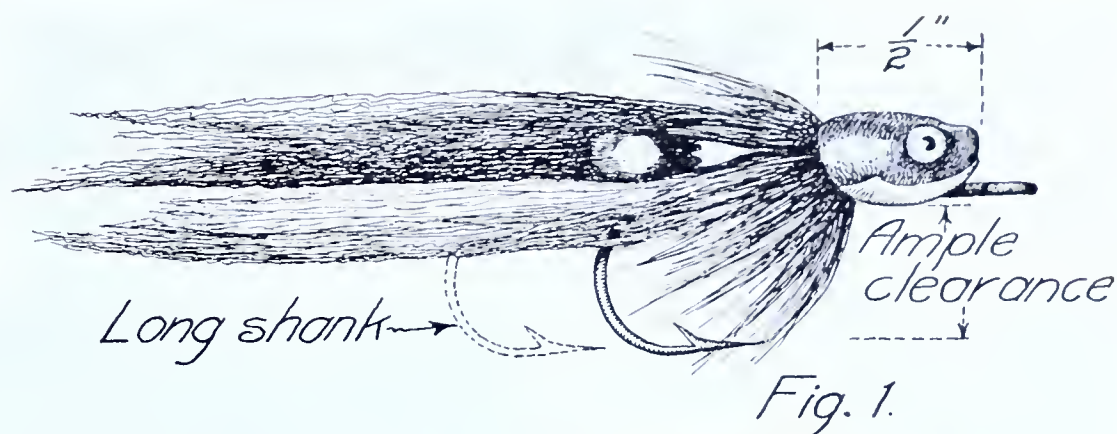
a dozen patterns in vain. Mr. T. E. Price-Tannatt,<sup>1</sup> illustrates and describes pliers that look efficient, as they are made of heavy spring steel and have jaws lined with integrating teeth. But these were made to his order by a maker of surgical instruments.

If you wish to retain your Christianity, and I believe that fly-tyers possess, or at least should possess, more than the usual modicum of such, use your good fingers to wind the tinsel on grasping it tightly with the finger nails and smoothing the turns with the left fingers while doing it. After it is on, the tinsel can be cleansed if necessary with a camels' hair brush dipped in chloroform or carbon tetrachloride which evaporate almost instantly. A coat of clear, thin, nitrate lacquer may then be applied to the tinsel without difficulty on most bodies.

In tying tinsel bodies for streamer flies, especially with the medium and wide sizes of tinsel, the beginner may experience difficulty in persuading it to wind on evenly. This may be largely overcome by first tying on a smooth slim body of fine thread and then applying the tinsel so the edges do not overlap. When the body is to be overwound with wire or oval tinsel, a narrow space may be left between the turns which is afterward occupied by the over-winding.

Among the important but somewhat tedious operations in finishing a large fly is the whipping of the head. The writer has tried several widely advertised devices for this purpose but has finally fallen back on the one illustrated in figure 3. It consists simply of a darning needle set in a wooden handle or small pin vice and has a large eye, easily penetrated by the tying silk. After two or three turns are taken, including therein the needle, the end of the silk is slipped through the eye and the needle is then withdrawn, pulling the bight of the thread with it. When this is pulled tight and severed, the operation is complete.

<sup>1</sup>"How To Dress Salmon Flies." A Handbook for Amateurs, Adams and Charles Black, London, 1914.



## TRUSCOTT IS SPEAKER AT ASAPH MEETING

The Asaph Rod and Gun Club held a splendid meeting in April. The Club, which has become one of the most active sportsmen's organizations in Tioga county, was addressed by S. J. Truscott, of Dalton, Pa., a member of the Fish Commission. Fifty-one members and 18 guests attended.

Mr. Truscott commended the Asaph Club on its fine progress. He went on to explain that one of the Fish Commission's first objectives is to add an amendment to the Fish Code, which if passed will allow bait fish to be taken on Sunday in the same manner as on a week day.

As the Code now stands, bait fish must be taken on Sunday with hooks and lines only, whereas a net may be used during the week. Mr. Truscott also talked on conservation, stat-

ing that it is much easier to conserve fish and game stock than to restore it.

He complimented the Tioga County sportsmen on their extensive program and also on the large percentage of sportsmen who have joined organized clubs. He said that in 1938, the Commission sent out over four million trout to streams of Pennsylvania, of which over one-fourth were legal-sized.

The average annual cost of operation in the Fish Commission is \$600,000 he asserted. This includes \$101,000 for salaries of Wardens, and the balance is used for conservation and hatchery operation. About \$600,000 is received annually from fees for licenses.

Cody Roby, of Morris, president of the Tioga County Federation of Rod and Gun Clubs, outlined some of the plans for stocking Tioga county streams in the near future. Mr. Roby announced that starting soon the old mines, which now empty into Babbs Creek, will be sealed to make the stream fit for ap-

proval by the Fish Commission and the waters will then be stocked with fish from the state hatcheries.

President Milan Butler, in charge of the meeting, introduced the following visitors: Mr. Truscott, Mr. Roby, Kenneth Aley, of Galeton, Potter county Fish Warden, Warren Olman, of Galeton, Potter county Game Warden, Leslie Wood, of Wellsboro, Tioga county Game Warden and Leland Cloos, of Holiday, Tioga county Fish Warden. Members from various other clubs were also present.

The business meeting was brief, and only the most important matters were discussed. Arrangements were made to make willow plantings on the right-hand branch of Strait Run. One group worked on the project April 8, and another group April 12. Members of surrounding clubs were invited to take part in this project, since it is to provide shelter for some of the new stock of trout and will benefit all fishermen.



# "BACK-TO-NATURE" BASS

## Introducing A Plan for Improved Bass Fishing

By ALEX P. SWEIGART

**J**UST tab the following suggestions relative to our favorite game fish, the smallmouth bass, a "Back-to-Nature" plan and the title will be adequately descriptive. Essentially it is not and cannot be a panacea for the present scarcity of bass in many of our waters but, as one fisherman to another, we figure that by taking nature into partnership a definite move in the right direction will have been made. Primarily, of course, and we've hammered along this line for many moons in the ANGLER, the foundation for permanent improvement in our bass fishing rests in restoring the supply of natural forage upon which this splendid game fish relies.

Have you observed your favorite bass stream this summer? Notice the fine growth of aquatic vegetation in many of the flats? This is the groundwork, the foundation, for a comeback in natural forage, one of the bright spots in an otherwise unpromising picture in some of our waters. Granted that crayfish production at the hatcheries can be stepped up to sizable proportions, and other types of forage stocking also be carried on intensively, there is reason to hope for a strong comeback in natural food in many of our streams. To make this improvement most effective and lasting, it is becoming increasingly apparent that more stringent regulations governing the possession limits on and taking of fish bait and bait fish from the public fishing waters are needed. Such action must be regarded as one of the most essential factors in betterment of the bass fisherman's sport.

In bass production in a wild state, three basic factors contribute to its success. First is the nature of the parent fish. At all times pugnacious, the male smallmouth, guardian of the nest of eggs and young, apparently exhibits the peak in this tendency when over the nest. This insures, under favorable conditions of temperature and clearness in the water at spawning time, an amazingly successful hatch of young. Granted the protection of the sire, the fry soon absorb the yolk sac, swarm toward the surface, and then, when the swarm breaks, seek suitable tiny coves along the shore where vegetation provides cover. Hardiness of the young bass as with other members of the sunfish family is the second factor. While subject to some diseases, as are all fishes, the bass fry that we have observed seem to adapt themselves to environmental conditions, in the stream in which they are spawned, with amazing rapidity. The third factor, and one of vast importance, is the fact that, at bass spawning time, most warm water streams teem with tiny organisms such as the *Cyclops* and *Daphnia*. Their growth spurred by this natural food supply, the young bass rapidly approach the stage at which they are capable of taking larger forage, tiny minnows, helgramites and young crayfish as well as nymphal forms of insect life. Observation of bass during spawning season and during the subsequent development of the young has convinced us that, in the instance of this spiny rayed fish,



Aggressive and alert, young smallmouth bass at this stage rank with the hardiest fish in the inland waters.

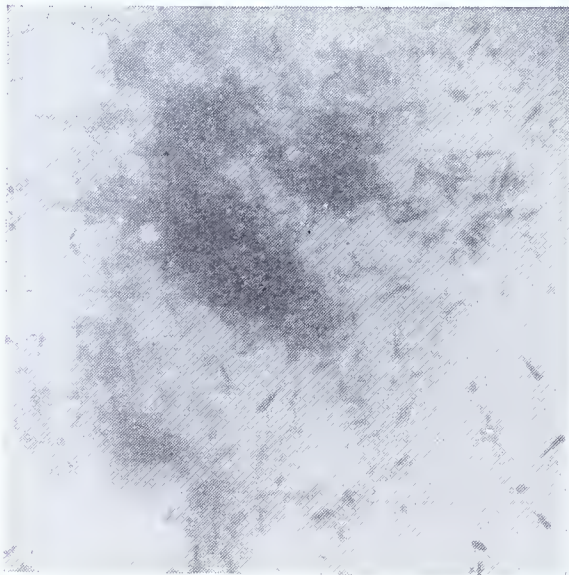
nature has displayed her greatest handiwork in the fresh water.

For the past several years, a certain stretch of water on Tuscarora Creek in Juniata county (a stream, incidentally, that would make an ideal test stream for the "Back-To-Nature" plan) has been a constant source of wonder to the writer because of the great number of small bass observed. Last September, Chas. K. Fox, accompanied us on a light lure casting jaunt over this stretch. In a certain deep pool, overshadowed by a giant ledge, we saw that day the answer to our "young bass stretch" as we had termed it. Cruising gracefully and seemingly without effort close to the water surface were two smallmouth bass, the kind of bass you read about and dream about catching. Frankly we believe Charlie to be one of the best judges in size of bass we have

ever known, for he has taken enough top-ranking smallmouths to form a most accurate estimate. He agreed that the smaller bass of the two was at least 20 inches in length, the other between 21 and 22. The larger fish was jet black in color, the other a yellowish bronze. Picture fish, you'll agree, and as we watched the two we shared the hope that no angler's barb would serve to disrupt this "natural hatchery" so vital to the bass supply in a hard fished stream.

### The "Back-To-Nature" Plan

The success of any plan relative to improving fishing is contingent, first of all, on a period of trial. We stand convinced that a three-year trial period on a selected water would prove sufficient time in which to test the merits or defects of the "Back-To-Nature" plan. Because Tuscarora Creek, from the angle of cover, supply of forage and suitability of water is typical of many of our smaller bass streams, it would serve as an excellent experimental ground. Here are the features of the plan. First, at intervals of approximately one mile over 30 miles of the stream, with the cooperation of landowners, establish stations to be known as "Bass Spawning Stations," same to be posted by the Fish Commission against all fishing from May 1 until July 1, opening of the regular season for bass in Pennsylvania inland waters. Preferably, the water selected should be a long flat ranging in depth from one foot to three or four feet, and having a good growth of aquatic vegetation. Second, into each of these Bass Spawning Stations, sometime between May 1 and May 15, release one pair of smallmouth bass, the fish to range in weight from two to three pounds or over. To achieve even better results, this allotment of adult fish might well be increased to two



Bass fry on the nest.



pairs of bass to each flat. For this purpose, wild fish should be released. Two possible sources from which these bass could be taken without resorting to removal of bass from our inland waters would be in tidewater, below the Conowingo Dam on the lower Susquehanna River, or in Lake Erie. We understand that in tidewater, at a point approximately four miles below Conowingo Dam, a splendid supply of well-conditioned wild spawners is available for an experiment of this kind. This would seem a logical ground from which to take the spawners for experimental purposes and the test requirements would not exceed, for the water in question, 120 adult bass, evenly divided as to sex. In order that the fish become thoroughly acclimated to their change in environment, it would seem advisable that they be stocked as early in May as possible.

Protection of the spawning stations constitutes a third and vital consideration for success of the plan. In this, the landowners and organized sportsmen, numbers of whom are each year appointed as special fish wardens, could cooperate with notable success, we believe. Coordination of this protection could be achieved under the direct supervision of a regular warden on the test stream. Since, in most instances, the spawning stations or flats set aside for the purpose would rarely exceed a quarter of a mile in length, ample water would be available in other sections of the stream for the warm water fishermen prior to opening of the bass season. Of course, with the opening of the season, all stream sections would automatically be thrown open to the public for fishing, and we firmly believe that the plan would prove popular with the rank and file of our fishermen, for the presence of the big bass used as spawners in the stream would make the season sport more appealing. One sentence serves to sum up the program after the wild spawners have been released and given protection: Let nature do the rest.

**Why "Back-To-Nature" Bass?**

It is plain and simple logic that nature, in her culling process in a wild environment,



*Photo by M. J. Myers*

**This is the type of stream flat we have in mind as a Bass Spawning Station.**

whether for fish or game, has an inimitable way of seeing to it that the strongest of a species survive. Weaklings in any brood of fish soon are outstripped in the keen competition for food and fall by the wayside, thus insuring survival of the strongest specimens for carrying along a species.

Assuming that normal stream conditions exist when the brood bass spawn in a protected flat, it is not illogical to hope that the hatch may easily approximate 2000 young fish on each nest. Granted the protection of the

sire, these young would follow through the normal natural process of absorbing the yolk sac, swarming and finally dispersing in small groups to scatter in shallow coves of vegetation throughout the flat. Their subsequent growth on minute organisms and development through later feeding stages would be strictly on a normal, natural basis. They would be exposed, as are all wild fish, to the incursions not only of larger members of their own species, but to the depredations of sunfish, pickerel and other fish life. Reptiles such as the watersnake and certain species of turtles could be counted upon to exact their toll from the brood of baby bass. This is as it should be, for nature is a stern and exacting mistress. In the end perhaps, only 500 of that brood of bass might enter the fall feeding surge of their species in preparation for the winter dormant period. But count upon it, these young bass would have been tempered by the harshest code in the world today, the struggle in which only the fittest survive. They would be, so to speak, the cream of the brood and as such should be worthwhile insurance for continuance of a good stock of bass in the water area where hatched. Naturally, there will be even a more widespread scattering of the young fish as they increase in size. By the time the dormant period is about to set in, some of the hatch may well be scattered to other flats and pools, upstream and downstream, for the distance of a mile. By the third year, when members of the first broods should be ready to spawn under normal, wild conditions, definite proof as to the success or failure of the "Back-To-Nature" plan should have been established.

Granting that a shortage of suitable forage is a major handicap to a sharp comeback in number of bass in many of our waters, we still

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**Smallmouth bass weighing from 2 to 4 pounds would make ideal breeders to stock under the "Back-to-Nature" plan.**



## DEAR MISTER EDITER---

### Anonimus Visits the Spring Creek Project

DEAR mister Editor of the ANGELER; I bet I couldnt tell you nothen about this here you know Fishermens Paradise up on Spring Crick what you dont know allready but a couple of days ago I says to myself I says Im agoin up there jest for the h--- of it and I went.

There was lots of people afishin and nobody didnt ketch nothin while I was a looken so I says to myself if I dont say nothin nobody wont know Im here and I kin still come back and fish five times if I want to I didnt see no coal miners around because them fellers was all down on Yeller Crick where they wouldnt be too fur off when this here you know mr. CIO Louwis says that nobody but them kin work in a coal mine but there was aplenty of other people afishin mostly at the bridge.

mr. Editer you would think them dumb rainbows would have lernt that it dont do em no good to hide under a bridge only they grow up so fast they aint got time to git no sense, and if you looked in off of the bridge it looked like out in Oregon where some salmon is spawning and a million rainbows atryen to grab the eggs and sometimes a salmon gits mad and grabs a rainbow only this time a rainbow got mad and grabbed a bucktail and it weighed four pounds and a haff.

I seen a real nice looken feller and I says

what did you ketch and he says I hooked a big one and they wont bite on nothen but a black nat and I lost mine in one of them there big old trees so I cant seem to git no more bites he says and aint that a h--- of a note and purty soon another feller he tole me that nobody was agitten no strikes excepten on Mickey fins and he didnt have none along and I says what are they like and he says they got red tops and yeller bellies and I says hes all wrong because them mickey Finns would be Irish and them irish has got warm hearts and cold feet and he never even luffed onct so I give him up and went to watch a great big feller afishen. This big feller had took one of these here you know canvas life preserves what goes all the way around and he had took out all of the cork out of it sos he could put fishen tackle in it and it was clear full same as another feller I used to deer-hunt with what owned a drugstore and when he went hunten he put it in his hunten coat sos he would have it along if he happened to need it.

So I set down by where he was a fishen and watched to see if he would bust his little rod every time he casted but he didnt and it must of been an awful good little rod or he wouldof. And I says to him mister I says kin I see that there bate of yourn and he says yes you kin and he showed it to me and it

is the very best bate there is for a brown trout because he had ketched so many on it only they wasent a hitten it this morning and he didnt see why not. And I says to him mister I says do you know what it might be worth to you to fish with that there bate in here and he says what do you mean and just then his pardner come along and he says you d--- old fool didnt you read them rules they give you and he says no I didnt and mabe I had oughter. And he looked at me kindof funny and he says do you work here and I says no not today I says Im just alooken around the place. A whole lot of people ast me if I was aworken there all the time I was just alooken around and mabe it was because I tried so hard to be polite and if you are awful polite they think you work there.

So then this big feller starts apullen boxes out of his life preserve and I never seen so many fish flies in my whole life before and he says I make all them things myself he says and I kin git all the feathers I want because where I live he says I go to all the cock fights and they give me all the necks when they git killed so I ask him where did he live and he told me confidenshul and if I was to tell you sometime you mussent never let on.

And when I was alooken around the ladys pool I seen a cute little trick afishen dryfly and she said she hadent had no bites since she had lost her black nat in a big tree too but whenever she found her gang she would make them give her another one and I rubbed mud on her leader to make it sink but didnt do no good. She had this here you know red stuff all over her fingernales like what you waterprufe your tyoff with and I ast her did she tie her own flies and she says no but my husband does. And by and by I seen her asetten along the bank where a feller was atryen to throw acrost to where a fish was arisen and maken a right fair job of it till his fly ketched on the back-cast and it wrapped his line all around his neck and she says real loud *that* is what we have been awaiten for she says and he looks and seen her and he says you go to h--- he says and I ast her was thet there her husband and she says yes it is. And she ast me did I know a kind of heavysset feller around here and I says yes I do and that is mister Art Snyder and I says I will bet you a purty that if you was to ast him did he remember that time you was here four or five years ago he would say yes and he would make you believe it even if you hadent never been here before in your whole life and she says well she says aint it grand that somebody is around here like that to keep you feelin good even if you dont ketch no fish and its a good thing they got him.

Then I went back to set some more at the bridge just in case another one of them dumb rainbows might git mad again and a feller come along and dropped his self on the fur end of the bench like he was all tuckered and I was alooken at a fat little feller standen around in a high pair of waders what he could of wore in one of these here you know noodest camps and still got by, they was so powerful tight fitten and I says how come



"When I was alooken around the ladys pool I seen a cute little trick afishen dryfly."



you think a feller would lug them things around on a hot day when rule 10 says you mustent wade for no purpose permitted and he says them aint got nothin to do with waden because I am acquainted with that feller and he is mortal skeered of snakes and them waders is so as if he mistakenly sets on a snake while he is afishen he cant git snakebit but I just now seen something a dumsight comicaler than him he says up here in the upper project above this here Paradise one he says and they was a gang up there four or five of them and one old feller he starts ashown off what he could do casten with his flyrod and the rest astanden awatchen him and about the time he had did a couple of fancy rolls and starts astraighnen out for some longrange stuff the gal in the outfit says lookout Pop she says them cows is right square behint you. Cows bedammed says Pop aint I just told you that your backcast dont never come down to the level of no cow if you are adoin it right and keepen your thumb whur it belongs and with that he hooks his big old bucktail smack into the flank of a half growed heifer. Fetch the landen net says the gal hes agoin to need it. Leave him go it alone says another feller, if he kin land that there caff all by his self he aint go no call to take water from ary fish in Spring Crick he says *stick to her Pop!* Come on here says Pop and help me ketch this caff sos I kin git my streemer back and he starts cobossy cobossy and sneeken up on the heffer that was aicken away at the bucktail like a hossfly was abiten her and about the time he gits purty close, away she trots with Pop afolleren all over the medder agiven her line and tryen to keep clear of the rest of the cows and cobossyen for all he was worth and the rest of the gang apassen remarks till he seen that the barb was sunk and it wasent no use so he give a jerk and broke his leader and he says *well* he says maybe that is how some farmer figures on gitten him some good fishfys apasturen his durned old cows in a projeck like this here one and I wish him good luck afishen with that there streemer of mine he says.

That is a main good fish story I says to the feller and he says if you dont believe it you kin go right up there your own self and see it sticken in her flank he says and I says no I wont because that there farmer just might come along and allow maybe it was mine.



"He was maken a right fair job of it till his fly ketched on the backcast and wrapped his line all around his neck."



"This big feller had took one of these here life preservers sos he could put fishen tackle in it."

Well mister Editor someday when you want to have a real good time you go to the fishermen's Paradise and just set around like I done and it dont count nothin agin the five days you kin fish if you want to and if you are awful polite, everybody will think you work there and ast you questions and they will tell you the only thing that they are abiten on today only they lost theres or maybe they didnt bring none along, and one feller he told me he says they call this here place the Fishermens Paradise because it is where so many good little fish flys has went to their final restingplaces.

Yours truly,  
ANONIMUS.

### QUICK ACTION SAVES BELLEFONTE TROUT

Bellefonte's pride and joy, the big trout below the falls in Spring Creek, might have perished or been made a little groggy at least when some liquid residue from gas mains accidentally found its way into Logan Branch, had it not been for the quick thinking and action of a well known local sportsman.

The instant he heard of the pollution in Logan Branch, Samuel H. Poorman former president of the Bellefonte Sportsmen's Association, notified James D. Seibert, superintendent of the Bellefonte water department, who ordered the gates leading into Gamble mill race opened so that water above the falls and below the point where the Branch joins Spring

Creek flowed into the race instead of over the playground of the big trout.

It is well for residents of this community to do everything possible to safe guard the lives of the big trout which have advertised Bellefonte throughout the United States. Messrs. Poorman and Seibert deserved hearty commendation for their quick-wittedness and action in this matter.

### LOGAN BRANCH TROUT KILLED

Hundreds of fish, including trout and suckers were killed on the night of May 18 in Logan Branch, Centre county, when a poisonous substance is said to have over flowed into the stream from the Central Pennsylvania Gas Company's plant at Axemann.

Scenes reminiscent of the fish hauls made by Coleville residents several weeks before when hydrated lime found its way into Buffalo Run were re-enacted by persons living along Logan Branch north of the gas plant. The trout, ranging anywhere from 5 to well over 20 inches in length, were killed by the substance flowing into the stream and were gathered up by tub and basketsful as the word spread quickly around that vicinity.

Fish Commission officials who were investigating the pollution and were interviewed by *The Keystone Gazette*, stated that dead fish were found as far down the stream as Griffith's Turn. The pollution was entirely accidental, however, they claimed. The maximum fine for polluting a stream is \$100, they said.



# GOOD HOUSEKEEPING ELIMINATES POLLUTION

By M. E. SHOEMAKER

**P**OLLUTION—the archenemy of pure streams and the fishermen—and sanitation are two widely separated subjects. Yet when they are associated with “good housekeeping” they are brought more closely together. The pollution is eliminated; sanitation and pure streams are realities.

Scientific research in the past has helped to eliminate or prevent some of the pollution which has claimed more than 80 percent of our fishing streams in Pennsylvania. Financial sacrifices have been willingly made by some concerns to install and maintain numerous types of filtration systems, some of which have failed. But “good housekeeping”—an entirely new method of attack—has been the means of eliminating the pollution from one of Pennsylvania's best trout streams, the Little Loyalsock Creek, in Sullivan county, until it is practically a pure stream again, insofar as the main source of pollution is concerned.

On this stream, near the headwaters at Dushore, is the Harrington and Company Plant, manufacturers of bottled milk, condensed milk, ice cream and ice cream mix. These products find their way to local and city markets, covering a wide territory in northern Pennsylvania and southern New York State.

The daily average of raw milk received at this plant is 50,000 pounds. However, during the summer months it is increased considerably. There are more than 70 employees maintained by this company in this small Sullivan county village, and to expect this number of employees to be interested in preventing the pollution of a stream seems somewhat remote. Yet this actually has been accomplished.

In any manufacturing concern it is to be expected that accidents will occur during the

process of handling the materials. The employees in this plant were no exceptions. Losses of milk and milk products did occur from time to time and found a direct way into the sewer and eventually into the stream. This seemed the only way to keep the plant clean following the accidents.

The sanitation law compelled this plant, as it does others, to keep their place clean above all other things inasmuch as the products are used as food for human consumption. The floor was one place that must be kept clean at all times. Inspectors insisted upon it. Anything that was spilled received immediate attention and was washed into the sewer. Result: A badly discolored, nauseating and polluted stream for several miles below Dushore.

The fact that milk waste is one of the most difficult types of pollution to control and regulate is well known among sanitary engineers. There is no pollution that gives off a more nauseating and offensive odor during hot weather. It settles on the bed of the stream and forms a thick grey slimy condition which decays and defiles the stream. Its effect on fish life is extremely bad. It robs the stream of the oxygen content which is necessary to maintain fish life. The result is a fishless stream and an open sewer which adds nothing to nature's pleasant surroundings.

Harrington and Company have not been ignorant of these facts and have spent a lot of time and money to find some method of abating the pollution in this stream. They were aware of the recreational advantages and values of good fishing, also of the money spent in the community by the fishermen and others from distant points throughout the state. They were conscious of the offensive odor coming



The stream, 30 feet above sewer outlet.

from the stream during the summer months. They knew that something would have to be done to eliminate this pollution before forceful methods were applied by the authorities. They were unfortunate in every venture to correct the conditions.

They were more fortunate, however, in having, among the employees, men who were vitally interested in the general conservation program. They had shown from time to time a keen interest in conservation, recreation, sportsmanship, sanitation and pure streams.

The management had a keen desire to have a pure stream to enable the fishermen to enjoy their fishing; a sanitary condition for their friends and neighbors who lived along the stream.

The business was growing and the amount of raw milk received was increasing which would increase the pollution load to the stream. It was imperative that something definite be found to prevent the further pollution of the stream.

The management knew that the destruction of the forests of Sullivan county would not help to increase the flow of water in the stream enough to carry off a heavier pollution load.

A conference was held early in 1936 and it was decided that an immense filtration system would be immediately installed. A large system would take care of any increase in the business. Numerous companies and individuals who were well versed in sanitation engineering were consulted. The systems required to take care of the refuse were selected. Bids were requested, and five bids were submitted. They ranged in price from \$13,320.00 to \$22,000.00.

The problem seemed solved at last even



Harrington and Company main plant.



though it was to cost a considerable sum of money. But it must be done. Plans were nearly completed to start the construction. However, further research indicated that the filtration system would soon fill with solids and allow the waste materials to get into the stream even though it passed through the filtration system. This seemed worse than a direct sewer to the stream which would not cost thousands of dollars. It seemed like money entirely thrown away. The filtration system idea was discarded and the old method of discharging direct to the stream by sewer remained intact. No treatment was found to solve the problem.

By August, 1937, a high discharge of waste to the stream during the summer had made a very unsanitary condition. State authorities were notified and they requested that something definite be accomplished to abate the pollution without delay.

Further research, time and money was used without any satisfactory results. Time passed into fall and winter to relieve the pressure until spring. March, 1938, soon passed, and still nothing of a definite nature had been accomplished to insure a pure stream for the coming summer months.

The management were at their wits' end to know what to do or which way to turn for help. They exhausted every effort to find



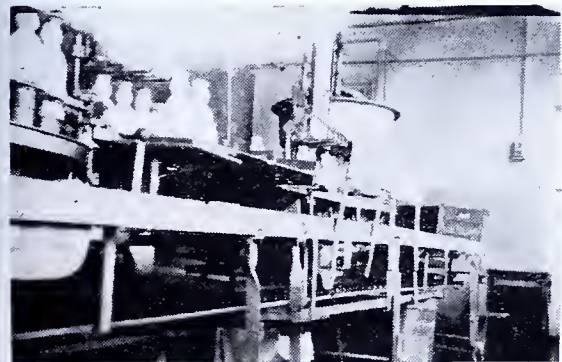
The stream, 30 feet below the sewer outlet.



Empty cans draining before washing. Waste received at extreme left.

some feasible plan to correct the condition. Finally, early in May they learned of a meeting which was to be held at State College relative to the control of milk wastes. A representative of the company attended this meeting to learn of anything which might be of interest and help to solve the problem.

One of the speakers was Dr. Trebler and his general run of comments were along the same old lines of the past. Things seemed hopeless. Would nothing new ever develop to take care of creamery wastes? Finally



Pails under bottling machine keep any milk off floor.

Dr. Trebler made a statement that hit a responsive cord. That thought was "Good Housekeeping." The representative visualized a way out of the dilemma. One thought led to another in the mind of this representative until something of a concrete nature presented itself. It was: "Instead of having the waste go into the sewer, why not eliminate the waste so far as possible. Keep the necessary and unavoidable waste out of the sewer and it will not get to the stream and the pollution will be prevented."

He returned home with this "good housekeeping" idea fully impressed upon his mind. But he could not do it alone. He must have cooperation. Could this be secured from the employees in the plant?

He spent some time surveying the entire plant to see just where any waste could be eliminated to reduce the pollution load to the stream. He studied methods of just how the waste could be kept from entering the sewer. Could this be successfully accomplished?

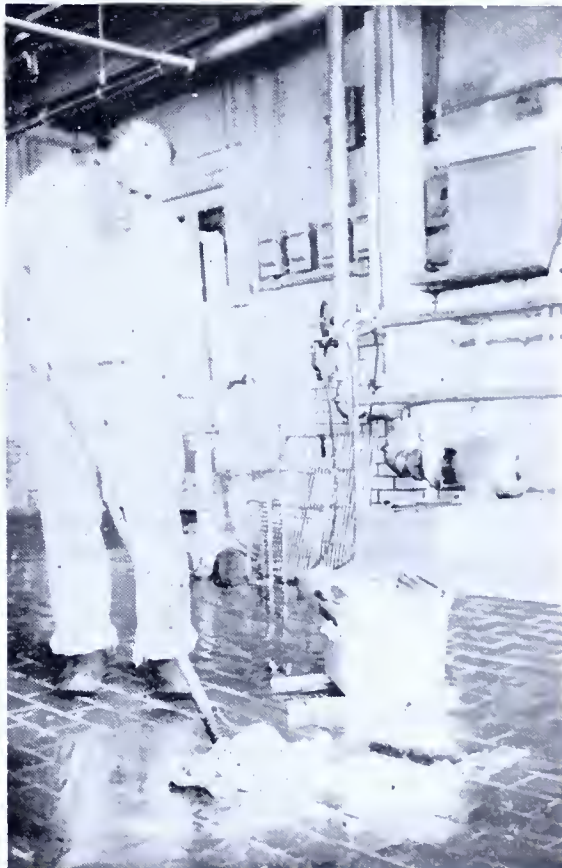
His first point of contact was the raw milk as it entered the plant. It must be emptied from the cans and the cans had to be thoroughly washed. Here was the first point where excessive loss and waste could be eliminated by using more cans in emptying the cans of raw milk. The empty cans could be more carefully drained after they were emptied. They could be drained into some receptacle to keep the former waste milk from the floor. A new process of washing the empty cans could cut down the pollution load by using less water for can washing. Careful draining of the cans would not leave as much milk in them as before and less water would be required to wash them. Drippings from the cooling systems, bottling machinery and many other places were noted and studied. The loss of ice cream to the floor while filling the containers was noted. Ice cream mix was being spilled on the floor. Condensed milk suffered severe losses during its handling. All of these losses were just the same as money being washed from the floor and into the sewer. Could these losses be eliminated and still get the products out on

time? Could the waste be kept from the sewer? If so, how?

The representative was completely sold on the "Good Housekeeping" idea and it was moving forward to achievement. His thoughts were: "If good housekeeping methods can keep things in order in the home it can work here. The waste can be eliminated and the pollution prevented. Careful management in every department will mean good housekeeping."

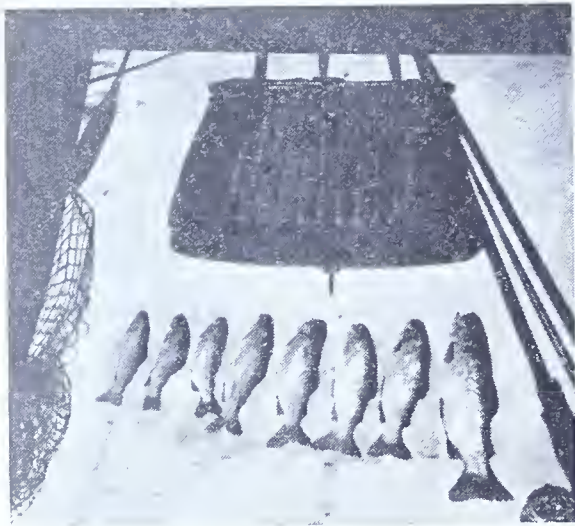
A meeting of the heads of all departments was called. The idea was presented. It found responsive minds. Plans were inaugurated.

(Continued on Page 15)



Milk is mopped from the floor. Note mop wringer and receptacle.





This catch of eight brook, brown and rainbow trout, 7 to 14 inches, was made in Big Wapwallopen Creek by Tom Beldoni of Nanticoke.

## SCHUYLKILL ANGLER RECALLS EARLY SPORT

Samuel H. Daddow, of St. Clair, who has been one of Schuylkill county's leading anglers for more than half a century, thinks the sport these days "ain't what it used to be," writes Jack Richards of Pottsville.

He admits for one thing, that trout are a little harder to catch now than when he was a boy fishing with his father, the late H. L. Daddow. His father was recognized as the peer of all veteran fly fishermen in this county. He died in 1921.

The brown trout have wrought a great change in Schuylkill county streams, Mr. Daddow says. Rainbow trout also are a new species which must be fished for in a somewhat different manner than the brook trout which abounded when he was a boy.

Both new species are harder to take than the brook trout and since World War days, Mr. Daddow has been compelled to learn all over how to fish, he says.

At the time he enlisted in the army for European service, most trout streams in this county were well filled with brook trout. When he returned the brown trout had gained a foothold in streams and with brook trout rapidly succumbing to civilization, Mr. Daddow was compelled to try new methods of taking them. He has succeeded fairly well during those years since 1918, but he feels that it will take many more years until he can catch brown trout with the same degree of success that he has taken brook trout.

Mr. Daddow has been a fly fisherman for more than 50 years and was able to cast a fly before he entered the first grade of school, thanks to the excellent teaching of his father.

But Sam also learned to fish worms at an even earlier age, giving them up soon when he learned that fly fishing was much better sport.

His father, who died in 1921, was born in Virginia, coming to St. Clair during the Civil War. The elder Mr. Daddow made a pal of his son and together they had some splendid trips together. Their favorite streams in those early days were Wolf Creek and Little Wolf Creek, near St. Clair, Wild Creek in Carbon County and other Pocono mountain streams.

Years ago, Mr. Daddow says, one did not have the tackle the modern angler enjoys.

Most rods of that day he says were made of lancewood, but they were not at all like

## 10,000 FISHERMEN WILL READ THIS AD but - - WHAT WILL THEY DO ABOUT IT?

With more people turning to our streams and inland waters each day in search of pleasure and sport, we must follow a definite and aggressive conservation program so that this increasing army of pleasure seekers may have a fair chance to enjoy the use of our water resources and the many associated recreational advantages.

In order to enjoy "water sports," we must have WATER. If this water is to provide the maximum advantages, it must be CLEAN and reasonably PURE.

We do have water; nature has endowed this country of ours with a large supply of water that was originally clean and pure but, unfortunately many of our streams are at present so vilely polluted as to render the water unfit for any public use. Each one of us knows of some stream that would provide ideal fishing and bathing if it were not for the fact that the stream bed is clogged with rubbish and the water is polluted with oil, acid and sewage.

This deplorable situation will not correct itself, pollution is man-made, and man can correct it. Some of our streams can never be reclaimed but a great number of them can be restored to their original state of usefulness. The Huntingdon County Game, Fish and Forestry Association is waging an active campaign to improve our streams and eliminate pollution—MAY WE HAVE YOUR SUPPORT?

### JOIN THE

**Huntingdon County Game, Fish & Forestry Association, Inc.**

Active Membership and Annual Dues - - \$1.00

Junior Membership and Annual Dues - - .25

REGULAR MONTHLY MEETINGS; 3rd THURSDAY

### Some of Our Accomplishments During the Past Three Years . . . .

Sponsored the first large scale planting of "blight resistant" chestnut in Huntingdon County; have planted more than 8,000 seeds of this variety.

Assisted in stocking over 150,000 trout and bass in our streams.

Purchased and distributed over 3 tons of grain and more than 200 bu. of ear corn for winter feeding.

Spent over \$1,000 for CONSERVATION.

Distributed 2,250 nut trees and planted over 5,000 evergreens.

Operated "vermin control campaigns" that have accounted for the destruction of over 3,000 crows, hawks and owls and more than 1,500 watersnakes.

Obtained and planted 250 hybrid chestnut trees valued at \$2,500.00.

Secured over 40,000 fingerling trout for stocking in county streams.

This Ad Is Sponsored By The Huntingdon County Game, Fish and Forestry Association And Contributed To By The Following Merchants: C. H. Miller Hardware Company, Corcelius Hardware Company, Ross E. Goodman and W. J. T. Jones.

Novel Ad used in a membership campaign by the Huntingdon County Game, Fish and Forestry Association.

present day rods, because they were limber and rather unwieldy. A level leader and level line were almost invariably used and Sam has no recollection of tapered lines. He used a light line, his dad favored a heavy one. It was a pleasure, he says, to watch his father handle rod and line, tossing a fly with amazing accuracy gained from years of practice.

Sam does not remember the first pattern of fly he ever used, it being so long ago that he has forgotten. But he believes that it is not so much the pattern that counts as it is the way the fly is presented. He fishes both wet and dry flies, preferring the dry, but also when occasion demands and he cannot take trout on either he uses nymphs or minnows and at times even stoops to the use of the worm.

Sam's theory is that one must put the lure where the trout is, that if he is feeding on the bottom, down to the bottom one must

go. If the trout is feeding in midwater then one must place the lure there and if the trout is feeding on the surface then it is time to use the dry or floating flies.

Asked if his enthusiasm has dimmed over the years, Mr. Daddow says he gets the fishing fever more strongly each year and about mid-March can hardly wait for the season to begin. He fished every Sunday last year and much of the time between Sundays. This year he is trying out a new type torpedo head line.

Asked what is his favorite stream he says he prefers those of the Poconos, but he also likes to fish at High Bridge and in Clark's Creek, near Tower City.

He doesn't know where he will fish the first day this year, but it will probably be with one of his friends, Jim Malia, Joe Foster or Russell Carl of St. Clair, all of them expert wielders of the rod and line like Sam.





*Question: Occasionally, while fishing ponds and lakes in northeastern Pennsylvania, I have noted a condition which apparently strongly affects the fishing. People living in that section call it "working of a pond" and few fish have come my way when this took place. Could you tell me what causes this condition?—J.R.*

**Answer:** This peculiar phenomenon is frequently called water bloom—blossoming or breaking of a lake. This condition is nature's method of cleansing or purging the water area of surplus or waste forms or organic matter, consisting of both animal and vegetable matter. In nature's chemical laboratory the decayed vegetable and animal matter undergoes a change and is broken up in many fine particles, and carried as suspended matter at or near the water surface. The chemical change that takes place at this period, among the debris on the lake bottom, is accomplished by various forms of gases. In many cases these minute particles absorb sufficient gas to bring them to the surface. Being suspended at the surface, they undergo additional chemical changes by coming in contact with light and oxygen, the oxidization being hastened by the wind and wave action. This condition generally takes place in midsummer, when the surface of the lake becomes covered with layers of material resembling green paint or thick pea soup, accompanied by odors distasteful to those who use the area for recreation and other purposes.

The association of plants and animals in a lake exists in a definite and necessary chain of relationship. That is, in the food chain of fishes, the larger fish eat the smaller fish; the smaller fish eat crustacea, adult insects and their larvae; and the larvae feed upon various forms of plant life, particularly the microscopic forms of algae, present in the water. By midsummer, many of the plants, not consumed by the larvae, die and settle to the lake bottom.

High water temperatures cause a rapid decomposition of these organisms, together with the rapid breaking down of vegetable matter carried in from the surrounding drainage area, or accumulated from the previous year's crop of aquatic plants, causing the water to become foul or polluted. When waters are polluted by organic substances, a form of blue-green algae becomes very abundant and in most cases is responsible for the lake, when working, taking on the pea soup appearance.

The drought period of the past eight years has greatly lessened the water overflow from many lakes and ponds. As a matter of fact, many of them have become stagnant, or semi-stagnant, for the greater part of each year. This condition has been conducive to a very dense growth of aquatic plant life. The annual decay of this dense accumulation of

vegetable matter, combined with the small waterflow through the area, has caused a very intense working of these areas. The working of a lake does not, as a rule, kill fish, although their resistance is at a very low level, and they consume very little food during this period. This is caused chiefly by the low oxygen content of the water during the purging period.

Insofar as the welfare of the fish is concerned, it is believed that less harm is done where the water area is permitted to work to purify itself in the natural way, than where artificial methods are employed.

*Question: Do your records indicate at just what time the calico bass was introduced to Pennsylvania waters?—H.L.K.*

**Answer:** We find the following reference to early stocking of this species in the report of the State Commissioners of Fisheries for 1892-93-94: "The phenomenal success met with in stocking the rivers, lakes and streams of the state with black bass, led the commissioners to try the experiment with other members of the bass tribe. Among the first to be introduced was the calico bass, a fish which loves deep and sluggish waters, which yet will thrive in streams that are cold and rapid running. In 1876 some two hundred one and two-year fish were captured at the Licking reservoir, about 10 miles from Newark, Ohio, and brought to Pennsylvania. During the next two years more than 2000 of this species of fish were shipped from Ohio and placed in the waters of the Juniata, near Hollidaysburg. The calico bass thrived wonderfully well, surmounting all difficulties and soon found their way into the Susquehanna, where they are quite numerous, particularly about Harrisburg."

*Question: To settle an argument, what was the biggest largemouth bass ever to be reported to the ANGLER? Where was it taken? I maintain that the fish caught in Stillwater Lake in 1937 by Frank Kramer of Orwigsburg, Schuylkill County, was tops but a friend of mine says a Lake Gordon, Bedford county, bass heads the list.. Who is right?—J.D.*

**Answer:** You both are. Kramer's fish caught that year measured 24 inches in length, had a girth of 18½ inches and weighed 8 pounds 12 ounces. A Lake Gordon fish caught by Harry Wiltout of Rockwood that same year, however, tied the Stillwater bass, also tipping the scales at 8 pounds 12 ounces. This bass had a length of 25 inches but a smaller girth, 17 inches. Both of these all-time record largemouths in Pennsylvania, were taken on plug, our records indicate.



I bin afishin' fer bass an' hangin' around our big crick fer nigh onto 35 yeres cum this seezun an' it shure hez bin wuth a lot ter me ter see the changes thet haz tuke place. Back around 1914, they wuz mebbe 1 fisher ter 100 on our crick now. In them days, nary a flat but hed a dandy lot o' bass in it. Big bass, sum o' them, too, an' the best I ever tuke wuz caught on a stone cattie. Thet fish wuz in Dobbs' flat an' it wayed better'n 5 pounds. 'Twuzn't no trick then ter go ter a shaller er 1 o' the leetle runs at nite an' ketch enuf catties fer a day's fishin' in 1 er 2 scoops o' the minnie net. Now a feller hez ter work like blue blazes ter ketch a dozen. The same goes fer crabs, clippers er helgermites ez you call 'em, shiners an' nigger chubs. Semes like ter me, an' I'm jest a plain fisher, thet this here food supply hez a whale o' a lot ter do with our bass fishin'. You can't keep cattel, er horses er other stock in gude shape ef they don't heve plenty o' grub an' the same thing goes fer the bass an' other fish.

Back in them days, cum lait May, on every flat a feller cude see the bass over their nests, not jest 1 er 2 nests on a big flat neether, but mebbe 6 er 8. Ef you ketched a bass in them days an' it wuz a foot long, you cude bet yer bottom doller thet it ud scale a gude pound, 9 times outer 10. Nowadays, we ketch bass, sum o' them 19 inches, thet is long an' racey an' mebbe onley way thet much. Jest offhand, I reckon ol' lady nature kin show us a whale o' a lot fer makin' better fishin'. Them bass 20 yeres back wuz plumb hefty an' chunky fish thet maid a feller figger when he tied into them thet he wuz fast ter sumthin thet musta fed on dynamite.

Even thru the erly 20's the bass semed ter hold thare own rite gude in the crick, but since then, yere by yere, they bin aslippin'. Thet's why I figger thet stockin' feed fer them'll do a lot more good then just stockin' more bass ter throw the works more outer balance.

Funny thing, too, when the bass wuz plenty, it wuz mitey seldom a feller'd hook a gude pike er pikerel, ez you call it. When the bass got rite scarce, semed like the pike got more plenty. Figger again, mebbe, the food in the crick hed sumthin' ter do with thet. Rite now, we're ahopin' in this neck o' the wood thet ol' lady nature kin be given a chance ter help bring our bass fishin' back. Reckin she kin, too, ef she's given haff a chance.



# THE PLEA OF THE BLACK BASS

By WALTER D. PERRY

I AM the spokesman for all my species which your men of science have named the *Micropterus* and which your people commonly know as the Black Bass. To you who seem to have dominion over all things of the earth, we are making an appeal for our future existence.

We are a peculiar race, found only in the lakes and streams of North America and especially in the section that you call the United States. We have fought a brave fight for many discouraging years, only to find our numbers growing fewer and our living waters steadily reduced in area. So we are wondering wherein lies this freedom of which you boast or to what avail is this brave fight.

We may have had our origin, eons ago, in another geographical age, from certain salt water fishes which became landlocked in one of the ancient inland seas, which erosion and drainage changed into fresh water lakes connected by running streams, so that we evolved into a fresh water species. We have every reason to believe that our race has lived in these waters for many thousands of years, and, no doubt, our ancestors witnessed the great changes in the drainage system caused by the glacial periods. Throughout these ages we have been a victor in the game of life, which feat is so aptly phrased by Charles Darwin as "The survival of the fittest." We were here long before any appearance of the genus homo to which we are told you belong; we, therefore, claim the streams, the rivers, the lakes and the ponds as our natural heritage.

Nature has decreed that our race should be carnivorous, so we accept nature's laws and expect that many of our members must be consumed, as we, in turn, consume countless numbers of smaller fish and other organisms. In order that we could be able to survive the foraging of our enemies, nature has endowed us with the capacity for prolific reproduction. We have many natural enemies. Reptiles, such as snakes and turtles, consume millions of our smaller members every year; scavenger fishes prey upon our spawn if we are removed while guarding it; certain aquatic mammals, such as the otter and the mink, take their annual toll; greater and stronger fish, such as the pike and the muskellunge consume vast numbers of our kind. But this nature, of which we have spoken, moves in strange ways; while the greater fishes prey upon us, we, in turn, prey upon their fry and smaller members so that, all in all, a balance of power has been established that, so long as it is not disturbed by outside agents, maintains a constant ratio of the various aquatic species. This balance of power has been directing aquatic life in never ending cycles. When our numbers became too great and consumed the other inhabitants to a point where our food supply was insufficient, we have preyed upon our kind, thus reducing our ranks until this balance was properly adjusted. So through the ages these cycles would come and go as the years rolled on—rivers changed their courses, lakes drained themselves out and the landscape gradually changed but, in spite of it all, this

balance of power clicked smoothly on—life was orderly, if severe, directed by some mighty Being or power that has been the wonder and the mystery of all creation.

A few thousand years ago there appeared a strange people on the shores of our lakes and streams. They were wiser than any creatures we had ever known before. They, too, preyed on our kind. For a while we feared this newcomer, thinking that perhaps he, with his clever devices, would cause our extermination. Then we noted that he also preyed upon our enemies, which gave our fry a better chance to mature. We also noted that this stranger had no intent to destroy, he took only that which he needed. We were finally convinced that the Indian was also one of nature's children, that he fitted well into the great natural scheme and that the balance of power was not disturbed.

Bordering our shores, extending in all directions and ending we knew not where, stood the "Forest Primeval." This great drainage regulator played a mighty part in our life and development. Its carpet of leaves and matted roots acted like a great sponge which absorbed the rain and the melting snow, holding it back and releasing the water slowly so that the streams were afforded a steady flow of clean, pure water. There were no sudden, disastrous floods, neither were there any periods of low, stagnant water, only once each year did the streams experience violent flood conditions, and that was in the early spring when the ice broke up and moved down. It was the annual housecleaning that scoured the stream-beds leaving clean stones, gravel and sand on which we spawned. Its network of roots held back erosion, its towering trees cast

cool shadows along the shores, affording us seclusion and regulating the temperature of the water. Insects and their larva falling from these trees formed an important portion of our food supply.

These were the conditions under which we lived until the arrival of what has proven to be our greatest enemy and arch destroyer, creatures whose ways are not nature's ways, a people we fail to understand, the white man.

Your pioneers cleared the forests and tilled the soil. After a while we noted great fluctuations in the water level of the streams, there were frequent floods and periods of very low water. Then we noted a strange element, mud, in the water and on our spawning beds—much of our spawn was destroyed by this sediment so that our reproduction was greatly reduced but, inasmuch as your people preyed heavily on our natural enemies, we noted that a greater portion of our offspring reached maturity. While our general numbers were greatly reduced, there still remained a fair adult population of which these newcomers took a heavy toll. The balance of power was disturbed.

Finally, great cities appeared along many of the larger streams. They used these water-courses as convenient sewers to carry away discarded matter. For a great distance below these populous centers the water was rendered unfit for our existence and we had to move on to purer water. In many places you erected factories, some of which released vile discharges of chemicals into the streams. This poisoned the water and killed every living creature for many miles down their courses. Many streams that we inhabited drained country that contained minerals, and especially coal—this, you, of course, minded. In coal



Frank Krebs, Jr., of Philadelphia caught this fine 4½ pound largemouth bass on plug last fall while casting in the Bristol canal.



there exists an element that you call iron pyrites that, when sealed in the coal, is harmless but, when exposed to the oxygen of the air, has a chemical reaction which produces sulphuric acid. This acid, naturally, drained directly into the water courses. All such streams are now devoid of any aquatic life.

As far as fish life is concerned, the country surrounding your city of Pittsburgh is now a desert. We have been driven far from you in many streams that were once the finest places of our abode.

Our physical growth depends almost entirely on the amount of food we consume. In Southern waters we do not experience seasons of complete dormancy and are able to feed during the entire year, consequently, in that sector, our size is much larger than in Northern waters where, during severe cold weather, we must hunt the deeps and lie in a state of hibernation during this cold period. We emerge in the Spring in a weakened condition and must feed to the point of being gorged in order to build up a vitality that will permit us to perform the strenuous duty of spawning. When this season is over, we must again feed heavily to build up a fat reserve to carry us over the dormant winter period. This explains why we are so easily taken by your lures in these Northern waters and especially those lakes of your neighbor, Canada; because of these conditions plus your sportsmen's easy access to these waters, many of Canada's glorious chains have been all but fished out.

There are no more frontiers for our kind. You have penetrated our hidden fastnesses and have journeyed to the extreme limits of our habitation. First by canoe and portage—railroads followed—paved highways can now be found in a great network that crosses our streams and skirts the shores of our lakes. In the name of sportsmanship, thousands of your people have used these roads and highways and have camped upon our virgin shores. They have taken us in vast numbers, for what purpose we do not know. They could not possibly consume all they took, so countless thousands of our kind have been permitted to rot and decay in sorry heaps, whose ghastly spectacle is indeed a fit monument to their thoughtlessness and wanton greed.

Among your people there are some who understood us and have done a splendid work for our conservation. Our first great friend was your Dr. Henshall, whom your sportsmen call the "Apostle to the Black Bass." He was the first to recognize our situation and to seriously study the conditions under which we were striving to survive. It was through his writings and his teachings that many of your sportsmen saw that something had to be done. This resulted, eventually, in laws being passed for our protection in nearly every state in your great country and that of your splendid neighbor, Canada.

An old friend of mine, William Broadfin from the upper Mississippi, told me of a very unusual experience. "Bill" had a lair behind a shelving rock at the foot of a long riffle, just where it entered a very deep pool. For several days he had noticed a peculiar bug or fly lighting and rising from the water. After a while he swam out to investigate, and finally decided to taste this strange creature that had disturbed him. He made a savage strike, and immediately realized that he had been deceived—he was fast to a fisherman's lure. Poor old Bill—he was a mighty specimen in those days



Pomeroy's Dam on Tuscarora Creek, a central county bass stream.

—put up a great fight which lasted for over an hour, but his great strength could not forever hold against the never-tiring spring of that rod. Becoming completely exhausted, he finally gave up. The man handled him gently, looked him over and pointed a black, box-like article toward him. Bill heard it click. He then talked to Bill (or just talked to no one in particular), and said, "What a fish and what a fight! I have been fishing for you for two solid weeks, but this is worth it—and now, old boy, I am going to reward you." Then he did a strange thing; he carefully removed the hook, which had no barb, and permitted my old friend to swim away, unhurt.

I have since found out that that fisherman was William Dilg. It was he who, a number of years ago in your City of Chicago, met with fifty other earnest men and founded the Izaak Walton League. This organization has proved to be our greatest friend. Being national in scope, it has been responsible for much good legislation that has resulted in better conditions for our species. It teaches your people to conserve and not to destroy what you have left of wild life. Through its example, many of your anglers now use barbless hooks and keep only as many fish as they can use.

So, to any who may have our problems at heart, to any that want to see the polluted streams made pure again, to any who want to see forests replace the denuded hills, to any who love nature and the wild things it contains, we believe that you could take no better step than to join with the Izaak Walton League and other conservation-minded organizations and help them in their splendid fight.

Our fight for existence is now beyond our control; your disruption of nature's balance places the burden of our future squarely on your people. If you would have our kind perpetuated, it is necessary that further pollution must stop, sportsmen must obey the laws, to go further than the law and stop before the legal limit is reached; they must know that all of fishing is not the killing of fish; they must learn that lasting joys do not come from destruction, rather they descend upon him who lives with us and with nature. From now on, the price of our existence is eternal vigilance by all of you who do not want to see us perish from the Earth.

PIKE ASSOCIATION HAS FINE PROGRAM

A livewire sportsmen's association in Pike County that has gone to the very core of the conservation education problem is the Little Mud Pond Association, a member of the State Federation of Sportsmen's Clubs.

Following is one of their posters that has been tried with outstanding success:

ATTENTION PARENTS!

This Association solicits your aid in teaching our Boys and Girls Conservation of Wild Life.

1st By "Personal Example" of true sportsmanship.

2nd By impressing, in a manner interesting, rather than authoritative, how important, to their future enjoyment of hunting and fishing, is, the need of Conservation of Fish and Game.

3rd Do not expect too much or curb your children's instinct to hunt or fish. They too love the "Strike to Rod" and the "Kill to Gun."

4th Praise lavishly where praise is due, chide sparingly all mistakes.

If you but accomplish little of all these points, you have done much in the moulding of our Sports—"Men and Women."

Little Mud Pond Association

Member: State Federation of Sportsman.

The results of this poster campaign were far beyond the expectations of the club, according to member Al Snyder of Edgemere, Pike county. Where before small fish were to be found decaying along the shore of the lake, since inauguration of the educational program, none are to be observed. Parents and sportsmen at the lake vie with one another to teach the children the ethics of good sportsmanship and conservation. The association regards this campaign as one of its best investments.



## CRAWFORD SPORTSMEN STAGE FINE BANQUET

With an attendance of 600 persons, the first annual spring banquet of Crawford County Branch of the Sportsman's Council was held at Colestock High School in Titusville on May 11, featuring a turkey dinner, an entertainment program and dancing.

Both members and their ladies attended, as did a number of visiting sportsmen's league officials, state conservation officials and other distinguished guests. Hon. O. Clare Kent, judge of the Crawford County courts, and H. T. Englert of Oil City, division game supervisor, were principal speakers.

With arrangements for the event in charge of the countrywide officers of the council, aided by community chapter directors and a special committee from the Titusville chapter, the program was termed by a consensus one of the most successful affairs the council has sponsored during its successful five-year history in this county.

Attendance at the dinner in the gymnasium; at the entertainment and speaking program in the auditorium, and for the dancing to Major Hugh Olmes' orchestra in the gymnasium, was at capacity figures. The program, which featured magic by "Phoenix the Great," talented Titusville magician and several amateur boxing bouts, as well as the principal addresses, was in charge of Theodore F. Bartholomew, director of the Titusville chapter, who introduced the visiting guests, including:

Clinton White of New Wilmington, Lawrence-Mercer counties fish warden; C. H. Buchanan, Sharon, president of the northwest division of the Federation of Sportsmen's Clubs; C. B. Gill, Sharon, Mercer County director on the division board; George Sillman of New Castle, head of the Lawrence County Sportsmen's Association; H. A. Starrett, Tidioute, president of the Warren County Sportsmen's League; Carl Benson, also of Tidioute, Forest County game protector, and L. W. Wagner of Franklin, head of the Venango County Rod and Gun Club.

John Mock, outdoors writer of the *Pittsburgh Press* and president of the Outdoor Writers Association of America, spoke briefly, and introduced Reinhold Fricke, ornithologist of the Carnegie Museum at Pittsburgh—a member of the Crawford County council branch.

Mr. Fricke, although he addressed the group for only a few minutes, drew keen interest by his statement that he had "not found any place in North America which has so many different species of wildlife and birds as Crawford County—especially in the Pymatuning area."

The museum curator in making his 10th annual trip to the Pymatuning district reported that he has found many new and interesting species there this spring and in other recent seasons since the large lake has been opened.

Henry D. Brown, district commander of the American Legion, spoke to the group on Americanization, and the county game and fish wardens (Game Protectors George W. Keppler of Meadville; John Kennedy of Titusville; Refuge Keeper Oudette, Linesville, and Fish Warden Gerald Munson Linesville), were introduced.

Judge Kent spoke interestingly on definitions of a sportsman as found in the dictionary and explained and elaborated by the jurist. Supervisor Englert gave a brief history of the state game commission and lauded the Craw-



Lloyd DuBois of Merion was mighty proud of this fine catch of smallmouth and bigmouth bass taken on a casting lure in Penn Manor Club Lake.

ford County council for its fine co-operation with state conservation officials.

Mayor Luther D. Fulton of Titusville, extended an official welcome to the sportsmen and their ladies during the banquet, while various county officials of the council were introduced by Toastmaster Bartholomew at that time.

About 100 persons from Meadville, and as many more from this section of the county, joined with Titusville and eastern Crawford County council members in attendance.

Merle Bideaux of Woodcockboro, county president, said the total attendance was slightly in excess of 600.

Assisting in making arrangements for the first annual spring banquet were, in addition to the president:

Jack Hezlep of Meadville, the vice-president; C. W. Fay of Titusville, treasurer, and actively in charge of the local arrangements for the event; Herman Weed of Lincolnville, and Dr. G. E. Buehler of Linesville, secretaries; Ivan E. Burkely, Cambridge Springs, divisional director; W. Sackett Murray, Meadville; Dr. H. M. Daniels, Woodcock-Venango; Ira H. Lewis, Cambridge Springs; Archie Sullivan, Townville; Theodore F. Bartholomew, Titusville; Ed. Parsons, Saegertown; Rev. Charles A. Fuller, Centerville; William E. Harvey, Cochran; Charles Marzka; and these persons from Titusville—Lloyd Locke, John Kennedy, Harry Sterling, Cecil Harrison, J. M. Emminger, Dan McElhaney, William Helfrich, Harry Morgan, W. Arthur Brady, Mrs. Lloyd Locke, Mrs. C. W. Fay, Mrs. William Helfrich.

Carl McLain, Canadohta Lake, Raymond Armstrong and H. G. Mitchell, Townville, and George Keppler of Meadville, were also listed on the committee.

## FISH RESCUED IN HUNTINGDON

Thousands of fish were taken from Benson's pond, east of Fifteenth and Oneida streets in Huntingdon by members of the Huntingdon County Game Fish and Forestry on May 25-26. The work was necessitated by an unusual condition that arose at the pond.

Early in the week a few dead fish were noticed on the top of the water at the pond. By Tuesday the number of dead fish was sufficient to attract the attention of the sportsmen's association.

An investigation showed the fish were dying due to lack of oxygen in the water of the pond. The condition arose due to a storm on May 21. The heavy downpour on that day, "turned the bottom" of the pond, that is tore the vegetation loose from the bottom with the result that the vegetable matter started to decompose and in so doing took enough of the oxygen supply out of the water to cause the fish to die.

Then too there were too many fish in the pond—more than anyone realized.

Fish taken from the pond by nets were of all sizes and of all kinds. They were taken to the Raystown dam and Stone Creek by means of a special tank car owned by the state.

No estimate as to the number of fish that died due to the freakish condition at the pond can be made.

The work of taking the fish from the pond was started on Wednesday night the first load being completed after midnight.

Tests showed that no chemical was present in the water to kill the fish.

## NEW NURSERY IN CLINTON

An auxiliary fish hatchery with a capacity of 100,000 trout has been completed at the Elks Country Club on Youngwomans Creek near Renovo, Clinton County and already approximately 55,000 are being reared. Five thousand large and 25,000 small rainbow trout and 25,000 small brown trout have been placed in the ponds. All were received from federal hatcheries and the intention is to rear the fish for distribution in Clinton County streams.

A four-foot dam of stone and concrete has been constructed to impound water from Youngwomans Creek for the five ponds.

The project, costing \$17,894, was made possible through the work and financial assistance of the board of governors of the Elks Country Club, the Clinton County Fish and Game Association and the Western Clinton Sportsmen's Association. The Clinton County commissioners, acting in compliance with WPA requirements that a political subdivision sponsor projects, gave their approval and appointed M. C. Coleman, a member of the board, as sponsor's agent.

A week of events marked the official opening of the hatchery including a county-unit meeting of the two Sportsmen's Associations, a meeting for election of officers by the Western Clinton County Sportsmen's Association, talks and motion pictures for the Boy Scouts and Junior Isaac Walton League and for the public.



## GOOD HOUSEKEEPING ELIMINATES POLLUTION

(Continued from Page 9)

Then every employee was assembled for a general meeting at the plant.

The idea of "good housekeeping" and the plans were outlined. A history of the past pollution situation was carefully covered. Every employee was told that he or she had a responsibility to assume and an obligation to fulfill. They were advised of the cost of a filtration system and told that the money could be of far more value to them if it could remain in the business where they would have some chance of receiving some of it instead of the company possibly being forced to resort to some unpleasant duties due to the extra cost of the filtration system. They were told of the unsanitary conditions caused by the pollution and how it could possibly be prevented. They were shown that by eliminating useless waste by carelessness there would be an increase in the finished product to swell the financial returns from which they received their wages. They were informed that better fishing would be assured for themselves and their friends if the stream were unpolluted, because more fish could be stocked by making the polluted area fit for carrying fish. They were advised that a more healthful condition would prevail in the stream by elimination of the offensive odor during the summer months. They were told that conservation is a good thing to practice in industry because industry depended upon the conservation of the natural resources.

Every employee responded by a willingness to cooperate and the plans were adopted. The responsibility of the officials in carrying the entire load was considerably lightened. The program started at once and soon amazing results were evident.

Employees made suggestions here and there to eliminate waste. The management was being swamped with suggestions. New equipment was being installed. Every employee was

cooperating. They were being recognized through some of their ideas being put into practice by the plant. They felt like a part of the business and were fired with an enthusiasm to help establish "good housekeeping."

One employee was specially assigned to inspect the entire plant to detect points where losses were occurring. He passed through the plant hour after hour, day after day. For six months he looked for nothing but waste of the milk products and the points from which the wastes occurred. Not even a defect where a single drop of milk was escaping and falling to the floor was overlooked. All employees cooperated with him in every way. As the points of loss were noted they were immediately eliminated by new equipment or some change in what had already been established.

As an example: The milk in passing over the cooling coils was constantly being lost by spattering to the floor as it fell into the trough below. Good housekeeping was keeping the floor so clean that this spattering was easily detected, where before it had been impossible. This spattering was eliminated by installing splash boards of stainless steel on either side of the coolers. Every possible chance of a drop of milk escaping was checked and eliminated. It no longer was necessary to use a vast amount of water to keep the floor clean. The milk simply was not on the floor to be washed into the sewer.

However, accidents could not be entirely prevented and the milk products were occasionally spilled on the floor but this waste was not washed into the sewer as before. Good housekeeping was in order. It was maintained at all times. Every department was furnished with a sufficient supply of mops and receptacles which were equipped with wringers. These were suitably located and all losses were being mopped up and retained in the receptacles. The milk as it was mopped up was immediately wrung out into the receptacles and the mop placed where it could be ready for instant use. These losses are utilized by employees who live on farms and feed the waste to their pigs.

All employees were now pulling together. Good housekeeping was a reality. The plant was immaculate. The stream was clearing. Monthly meetings of all employees were being held to further impress upon their minds the necessity and value of sanitation, cleanliness and good housekeeping.

A chart was kept in the office for every department, its activities and ideas, to show the net results after the new ideas were installed. Some proved successful at once. Others needed expansion and some slight alteration which was not delayed.

Every department was proud of its achievements and was trying to outdo the other in sanitation. A slogan, "Don't get anything on the floor" seemed to be automatically adopted and practiced by every worker. The plans were working so well that it seemed that nothing new could be added to keep the plant any cleaner.

By October, 1938, a marked difference was noted in the stream. The offensive odor had disappeared. There were no stenchy, slimy, stagnant pools in the stream. Fish life was returning to the former polluted area and trout were being caught nearer Dushore. Tests were made in the stream and the oxygen content had increased considerably, it was found.

There was an 80% reduction in the quantity of water formerly used to wash the waste



A closed sewer drain has kept this spilled milk from the stream. This waste will be mopped up later.

materials from the floor into the sewer. There was a 90% reduction in the total pollution load to the stream.

In spite of the fact that much new equipment was installed at considerable expense, the saving of raw and finished products were more than enough to pay for the new equipment.

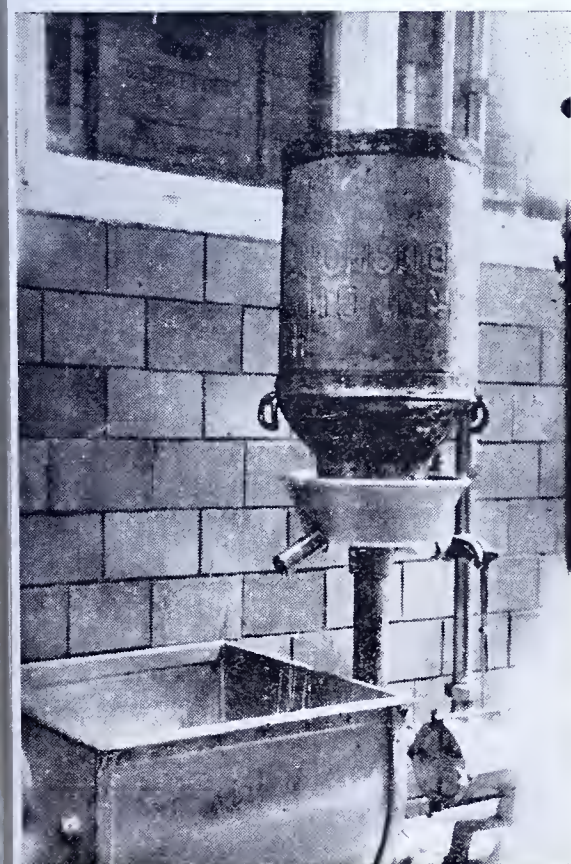
The plans have now been in effect almost one year and new ideas are still being tried out. One of the most recent ideas put into effect is that of preventing any loss of milk going into the sewer regardless of accident or otherwise. Every sewer drainage opening in the plant is now closed during the daily operations and any spilled milk or waste is immediately mopped up even though the amount is a large quantity. The great care exercised by the employees is quite evident when it is noted that the mop containers—which hold but 10 quarts—are rarely emptied more than once per day.

The net results of this clear thinking and good management were:

First: There has been a large saving in raw and finished material; Second, A large financial saving in the construction and maintenance of a filtration system which might have been only temporary relief; Third, The entire plant is cleaner than ever before; Fourth, There is a pure stream to insure fish life again; Fifth, the objectionable odor has disappeared; Sixth, Public health has been given a brighter outlook.

Harrington and Company are to be congratulated for putting "good housekeeping" into actual practice and upon the map in the manufacturing industry. Their activities should meet with the approval of every sportsman and fisherman in Pennsylvania. Other industries would do well to follow their example.

This plant is open to inspection by an individual or concern who may wish to study and duplicate this worthwhile plan of "good housekeeping."



Where waste empties.



## "BACK-TO-NATURE" BASS

(Continued from Page 5)

contend that this plan of having nature carry through restocking of such waters has one outstanding advantage. The supply of wild bass or other game fish is regulated in direct proportion to the available food supply. This means that while the number of bass produced on controlled spawning areas may be sharply reduced, the survivors are fish ideally adapted to conditions existing in any body of water at the present time.

For the past two years, in the central counties, we have been seeing our bass fishing slip steadily downward from the angle of catches. We must recognize the fact that, to date, this downward turn of the cycle has not been halted. For that reason, our main hope rests in taking nature into partnership to reestablish a good stock of bass in most waters. Generally, most bass waters are in better condition from the angle of forage production, cover and maintenance of consistent water levels than are many of our trout streams. While, it is true, the forage supply in these natural bass areas has been seriously curtailed through taking of fish bait and bait fish for fishing purposes, there is reason to hope that this condition will be improved through intensive restocking of organisms that comprise the chief diet of the bass. It is sincerely believed that reestablishment of a basic supply of bass in any suitable water through the plan outlined will work to the benefit of the fishermen, even though it must be recognized that nature, in her balancing process, will in all probability restrict the number of bass in a stream strictly to the supply of food available. The fact remains that a supply of wild spawners, limited though it may be in number, will provide the nucleus for rapidly improving bass fishing as the available forage in that area stages a comeback.

The "Back-To-Nature" bass plan obviously will not make possible a check-up as to number of fish produced in any given area. We stand convinced, however, that the vast majority of our bass fishermen are concerned primarily with improvement of their sport. If, after a fair trial, this plan proves workable, the results will more than justify the experiment. We cannot express the plan in any better way than this: Let nature supply the answer!

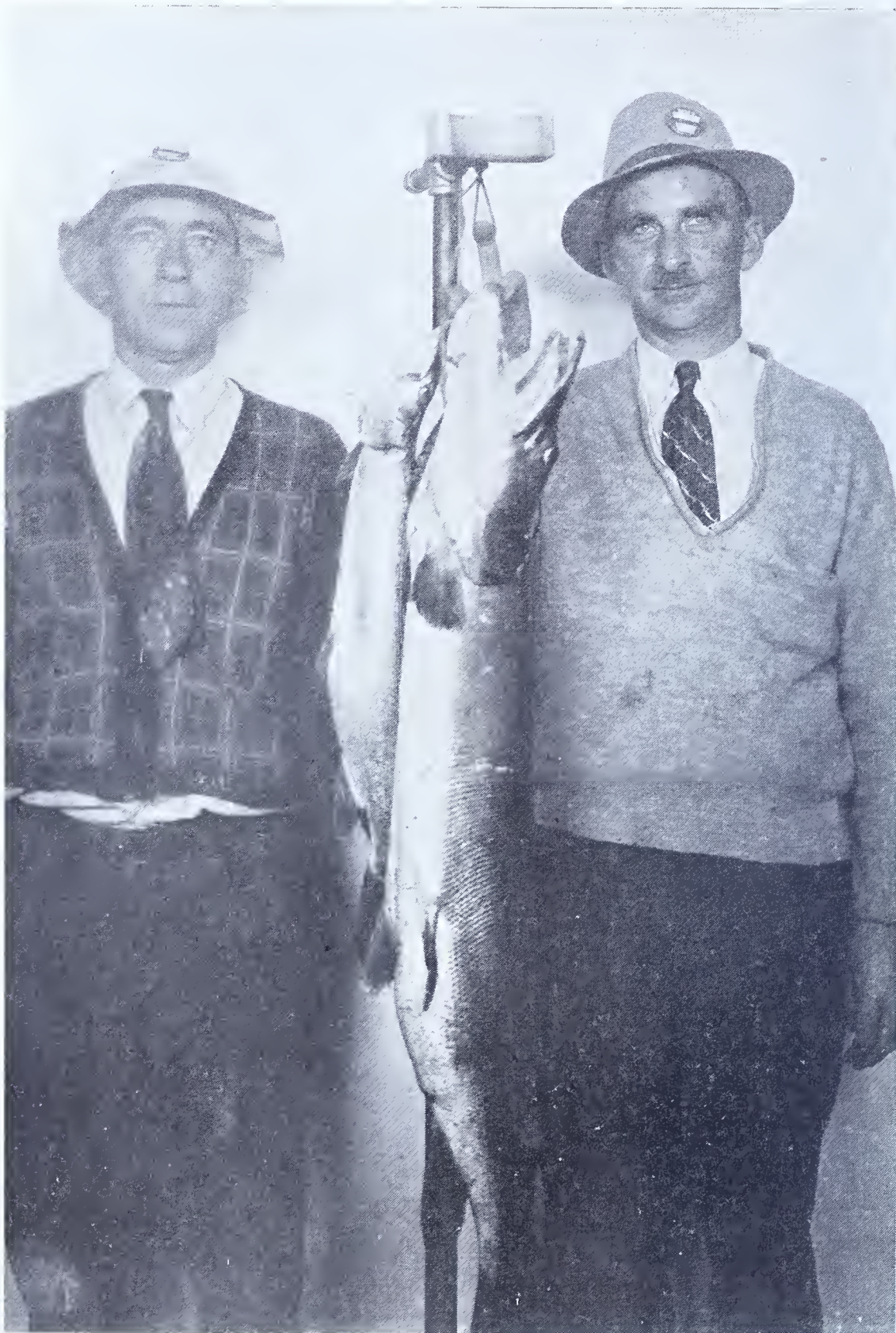
*NOTE: The views on bass stocking expressed herein are strictly personal and are not to be construed as reflecting the attitude of the Board in its program. Ponds in the state of Delaware annually produce largemouth bass in the record class. Complete protection from May 1 through June is accorded the spawners in these famous ponds.*

"What would be the proper thing to say if, in carving a duck, it should slip off the platter and into your neighbor's lap?"

"Be very courteous. Say, 'May I trouble you for that duck?'"

Lady Driver (after crash): "I gave the proper sign for the direction in which I was turning."

Male Ditto: "I know it, that's what fooled me."



George Gaub and Clyde Beers, veteran Meadville muskie fishermen with two muskies taken in French Creek. The larger fish weighed 25 pounds.

## McKEAN SPEAKER AT BAGDAD DINNER

The annual banquet of the Bagdad District Sportsmen's Association proved a huge success. Bill Ashe acted as toastmaster. Among the speakers were J. Fred McKean, New Kensington, Board of Fish Commissioners; Rollin Heffelfinger, Irwin, Division Game Supervisor; Ray McKissick and Bob Reed, game protectors of Armstrong and Westmoreland Counties. Walter Miller, secretary, Armstrong County Sportsmen's League, and Burton Welch, deputy game protector. R. Clyde King, Apollo, showed wildlife movies. Music was under the direction of Prof. Logan Ashbaugh of Leechburg. Rev. E. C. Good, Leechburg, pronounced the invocation.

## BOY, 2½, LANDS BIG RAINBOW

"Jimmy" Miller, 2½-year-old son of Mr. and Mrs. Eugene Miller of near Bellefonte, deserves credit for hooking and helping to land a large trout while fishing in Spring Creek at the railroad trestle at Red Roost. The youngster was fishing for chubs with a worm attached to a bare hook that had once been a fly when a 3-pound 18-inch rainbow trout decided that lure looked inviting and grabbed the fly in its mouth. Then followed a terrific struggle in which "Jimmy" assisted by his father finally landed the prize. The trout, half as long as "Jimmy" is tall, was proudly exhibited in the *Keystone Gazette* office and other places about Bellefonte.



## FISH-O ATTRACTING MANY FOLLOWERS

It used to be that fishermen only fished on days when the waters weren't muddy or the weather was right or they had a chance to get away from daily chores for the event—and it was an event. Even now, many of them complain that they don't have enough time for fishing or it costs too much to take the time.

Few anglers ever seriously thought that the day would arrive when they could "fish without any fish around to bite," for it seemed an idle dream to suppose that fishing would ever have a practice medium that might be played whenever anglers took the notion, regardless of weather or time.

Now—day or night, summer or winter, rain or snow—they can fish. And they can do it in the backyard, on the country club lawn, in the gymnasium or at camp in the mountains miles from the faintest kind of stream. All because the new bait and fly casting game, Fish-O, sponsored by the American Wildlife Institute, Washington, D. C., is making it possible to "practice fishing."

For the older anglers and experienced conservationists, who have developed scientific fishing skill, Fish-O will be doubly welcome: It will provide them with diversion on off-days and will do for the amateurs what they, the adult fishermen, have always wanted to see done. And to the younger, "rarin' to go" rod-and-reelers Fish-O will be what skeet is to the wing-shot, what water-wings are to the swimmer, what the minor leagues are to the majors.

As a game it is all simplicity; only a few rules govern the play; standard tackle is mandatory and the rest of the equipment is so easily assembled that the cost of creating a Fish-O layout is within the budget of the average contestant or club. Ten targets—rings that can be placed horizontally on any flat surface, a lawn or a lake or a pool—constitute the equipment. These targets are of two diameter sizes, 30-inch and 18-inch, six of the larger type, four of the smaller. All targets are used in the bait casting events of Fish-O, five of the 18-inch rings are utilized in the second division of the game, the fly casting events.

In fact, Fish-O is the nearest thing to fishing that anglers can possibly get, which, in the words of one experienced sportsman is summed up as "a darn swell game that is so easy to play and so interesting to follow that one wonders why nobody ever thought of it before this." Yet, nobody did think of it until it was born in a Chicago conference of fishing-minded enthusiasts this past spring and since its first public appearance has been growing by leaps and bounds.

State reports are arriving in the offices of the game's sponsors with news that Fish-O teams are being organized and tournament play planned. Among the first towns in the country to express interest in Fish-O were Bethesda, in Maryland, Norris, in Tennessee, Geneva, in Ohio, and Kalamazoo, in Michigan.

The very first actual tournament reported occurred on April 23 at the Riverside Fish

Hatchery in Indianapolis, Ind. The Indianapolis Casting Club and the Marion County Fish and Game Association held a joint Fish-O meet. Rex Edwards tallied top score with a 76. These same two groups staged a second Fish-O tournament on April 30, with a regular summer series of meets to follow.

A little later, the Metropolitan Rod and Gun Club of Brooklyn, N. Y., conducted an amateur fly, bait and surf casting tournament at Prospect Park, Brooklyn, one of the first team events in the eastern states. Washington, D. C. is planning an official Fish-O tournament this month.

National organizations—social and employee groups in industry—are indicating that Fish-O will be one of their regular sports events during the summer months. The Elks, for instance, with 1,300 clubs in the United States—and the membership is sixty per cent fishing conscious—have greeted Fish-O with cheers. High school and college athletic units are assembling target layouts, women are getting into the game, fraternities and sororities have requested rules booklets and it is certain that

many summer camps will feature Fish-O in their outdoor programs.

Boy Scout interest has been expressed by Fred C. Mills, national director of the Health and Safety Service of the Boy Scouts of America, who said: "it certainly sounds interesting and I believe will be valuable for promoting the sport."

Even Congress is "casting" an eye at this intriguing casting game. If the Senate and House of Representatives stay in session through the summer, which is more than likely at the moment, the Capitol Hill solons may be taking their Fish-O diversion on the lawn after office hours.

So widespread and extensive has the national interest in Fish-O become, the sponsors of the game are working out a program of prizes to be awarded winners of regional Fish-O tournaments and finalists in one national tournament to which regions and states can send their champion casters.

Rules booklets are available through the American Wildlife Institute, Washington, D. C.



Harper Wall, expert Dalton angler with two fine pickerel taken last season in Baylor's Pond. The larger fish, according to Fred Erb of Dalton, measured 24¼ inches and weighed 3½ pounds.



# BAROMETER FISHING PROVES EFFICIENT

By BRAINARD C. SNYDER

Courtesy "American Field"

WHEN Abraham Lincoln, an obscure country lawyer, named the new town of Lincoln, Ill., for himself in 1853, he remarked: "Nothing named Lincoln ever amounted to a tinker's dam."

Yet, eighty-five years later, a small group of Lincoln Sportsmen's Club members, cooperating with the writer in the field of fishing-weather research, has definitely proven what is hailed as the greatest boon ever offered to the tribe of American fishermen—the elimination of guesswork between good and poor fishing hours.

Barometer readings taken on 115 fishing days during the past season in various sections of the country establish the fact that 94 times out of 100 fish bite best under high atmospheric pressure and least under low atmospheric pressure.

The daily observations, representing the reports of two to twelve fishermen each, covered still-fishing, casting and trolling, and included virtually all species of inland fish.

Even salt water amberjack, barracuda and king-fish off the Florida coast, as well as trout in the Rockies, were found to bite best on a rising or continued high barometer reading, and least on a low. And the same rule applies, the tests showed, to bass, crappies and catfish in Illinois, and to pike, muskies and other varieties in Minnesota, Michigan and Canada.

One-half of the readings represented in fourteen months of investigation revealed that the barometer needle had been dropping or was low. Fishing was either a blank or was negligible under those atmospheric conditions.

The other half of the observations showed rising or high readings, during which catches were recorded in every section, ranging from sea level to 9,000 foot elevations.

## First Tests in United States

Final tabulations on the research, hailed as the first organized movement in the United States to test the belief that the weather observation in the immediate locality of the day's fishing is the chief reliable guide to fishing conditions, established 94 per cent efficiency for the barometer as a fishing indicator.

Unwilling to accept the theories that the calendar or almanac can govern or indicate the feeding habits of fish any more than they can foretell flights of wild ducks, sportsmen pioneering in the tests carried barometers with them on Summer trips. These were kept in the fishing cabin or tent or were carried in the tackle box, and were consulted twice or three times daily.

It was quickly found that poor fishing hours could be eliminated from the vacation schedule. Once they knew when the odds were in their favor fishermen had a sporting chance under high percentage conditions, and the size of their catches became a matter of individual skill or luck.

## Many Unproved Theories

Fishing, the oldest profession of mankind, has never lacked for sage advice on "where"

and "how" to fish. But the time to fish has run the gamut of unproved theories from sticking a wet forefinger into a west or south wind to following moon phases, with no certain results.

St. Regis Indian guides, whose personal preference is to horse in St. Lawrence muskies on a light clothesline without benefit of rod or reel, tell upper New England Sportsmen: "You might find your luck anywhere." But they can't say "when."

When the big fellows stop hitting, Ontario Indians in the White Shell region east of Winnipeg, come closer to the answer with "big fish go down deep—storm coming."

The storm comes—never doubt it—but the Ontarios are utilizing the fish's action as a barometer rather than using barometric readings to tell how the fish will react.

A pressure reading in advance would have prevented the informed fisherman from placing effect before cause. He would have known that muskies were going deep and were not interested in spoon-hooks, and that it was time to batten down the camp's hatches.

Many old timers in the North Country, as weather-wise as the next, often shrug off fishless hours with "fish bite when they're hungry." But when are they hungry?

## Explanation Is Simple

The cause and effect of this atmospheric phenomenon that has gone virtually unnoticed by fishermen since the men of Galilee spread their nets may some day be made the subject of a thesis by science.

This test was designed to weed out unfit fishing time for modern, busy fishermen and not to offer scientific explanations. Yet the answer seems exceedingly simple—as simple as reading a barometer to ascertain weather conditions of the next few hours.

In the absence of natural history surveys to explain the "why," the theory devolved is simply this:

When atmospheric pressure is low fish go down to equalize the pressure of air and water. They must even up their own bodily inward pressure with the outward pressure created by air and water. When the atmospheric pres-

sure becomes high they rise to evade the added weight of more air plus water, and thus relieve the strain on their air bladders.

In support of this theory, certain peculiar deepsea species, so constructed that they can live only at specific ocean levels where there is a given water pressure, will be found dead when hauled to the surface. The lack of their accustomed pressure has literally caused their innards to explode. Crappies brought up suddenly from forty or fifty foot water likewise die as they reach the top.

Fish, unlike deep-sea divers, have no decompression chambers available for them. They "roll their own." Nature prompts them to move upward as atmospheric pressure increases, and thus avoid the discomfort of "the bends."

The barometer fishermen found that during inactivity in deeper water under low pressure fish apparently go without feeding for considerable periods of time. If the pressure rise is particularly sharp they will be found feeding avidly.

## Why Fish Bite in Rain

Regardless of wind direction, wind intensity, rain, temperature, clarity of waters and changes of baits, it was noted that fish universally refused to bite immediately before a storm, yet became active when the low pressure area lifted.

The answer was found, too, to why fish often bite during a rain. The center of the storm had passed and the atmospheric pressure was rising. Some of the finest fishing reported occurred during rather foul weather, but only when the needle was on the upswing.

Five months of observations in lakes and streams of Logan County, Ill., showed fishing was good on thirty-five days when the barometer was rising and on three days when the barometer was falling from sustained high periods.

Poor fishing was recorded on twenty-seven days when the barometer was falling or low, and on one day when rising. On one of the low pressure days bass up to 2¾ pounds were taken in the forenoon when the reading was relatively high. The day's barometer decline occurred in the afternoon, when there were no fish reported.

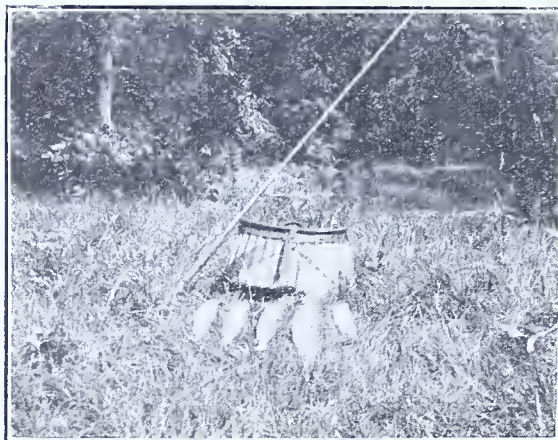
## Guide Becomes Convert

David Rhoads, at Walker, Minn., found between July 4 and July 10 that wall-eyed pike and calico bass hit only when the barometer was up. He took the limit on a high barometer and found boats reporting few or no fish when the reading was low.

"I sold the idea to my guide. He wanted my barometer, so I gave it to him," his report concluded.

John L. Gordon, weather bureau observer, encountered a week of stormy July weather at Iron River, Mich. After three fruitless days of fishing on a falling barometer, the weather cleared at midafternoon of the fourth day. The late afternoon's catch was nine wall-eyes, ranging from three to six pounds.

Brainard C. Snider, William Madigan, D. C. Parks and Emmett Weakley found wall-eyes so plentiful in rough Lake Kabetogama near International Falls, Minn., that some fish could be taken daily over a two weeks' mid-Summer period irrespective of wind or weather. Their barometer readings, however,



A fine catch of brown trout scored in Spring Creek, Centre county by Gust Swanson of Lanse.



showed the limit of thirty-nine to fifty-two pike per boat were taken when the reading was above 28.55 (uncalibrated to allow for change in elevation), and "poor luck" of eight to a dozen pike per party, was experienced on days when the readings were below that figure.

At Eagle Lake, Ontario, they found muskies and the immense northern pike with which the lake abounds were rising to lures only during high pressure periods.

#### Trout Tests One Hundred Per Cent

A month's fishing trip in the Jackson Hole country of Wyoming in September brought observations from John R. Parker, Lynn R. Parker and Dr. W. B. Perry indicating one hundred per cent that rainbow, speckled and cutthroat trout, grayling struck only on a high or rising barometer. Storms came up quickly in the mountains and soon cleared. Trout invariably refused to rise under low pressure conditions, yet a sudden barometer rise would bring catches of twenty to thirty trout within an hour. In Snake River and Spread Creek, at 7,000 to 8,000 feet, the Wyoming expedition, to thoroughly test the barometer theory, fished a number of days from daylight to dark right through succession of rainstorms. On one of these days two small trout were taken on a falling barometer during the forenoon. A storm rose at 3 p. m., after which the barometer started up. Large catches of speckled trout, up to two pounds, were taken during the late hours.

Further illustrating the changing conditions during a single day, the party, on another occasion, took ten trout in the morning when the barometer was up three points, fished hard through an early afternoon rain with no luck, and then as the barometer started up late in the afternoon experienced heavy catches until 7 p. m.

Full creels of cutthroat, from twelve to twenty inches, were taken on rising or high stationary readings, yet when the barometer was falling or continued low their records universally showed a maximum of two or three trout.

R. L. Dempsey, fishing in lakes above 9,000 feet in the Wild Basin country of Colorado in Summer and Fall, found that, although the weather might appear good at the lake, fish would not bite if a low-pressure area was gathering. He found fishing good when the weather cleared, especially when sustained a day or two.

Okeechobee, whose bass are world famous for size and numbers, had an inauspicious 1938 season opening day May 20 when for three days the barometer was low and falling. More than twenty anglers, casting in waist-deep water off Observation Island, six miles out from Liberty Point, averaged but two or three bass each over the three days of falling weather.

Although plentiful, bass were not in a striking mood during this adverse period, and it took persistent toil from sunrise to sunset to bring in a respectable collective catch. The largest weighed eight pounds, one seven, one six and eight scaled four pounds each.

Illinois bass likewise are extremely sensitive to atmospheric pressure. The 1938 season, opening June 16, in the central zone, witnessed a week of the best black bass fishing in years.

For eight days the barometer was high and steady. Limit catches daily were frequently reported around Liverpool, on the Illinois River. They averaged two pounds each and



Trout nursery ponds at the Spring Creek project, Centre county.

were taken on flies, bass plugs, spinners and live minnows.

Fly casters, on June 19 and 20, when the barometer reached a season high of 29.50, lorded it over the bait casters, who had somewhat lesser catches. During this red-letter eight-day period of sustained high pressure readings, even the bank line fishermen reported heavy catches of catfish. Panfish were biting freely, and skiffs came in off the Illinois River was as many as sixty striped bass.

Then came a stormy period to put a temporary damper on fishing. The barometer dropped to 29.06, and for thirty-six hours few fish of any kind found stringers or skillets.

Count not that day lost, however, when the boat gear is packed and the disciple of Walton finds the barometer at low ebb. Nor a day one of perfect promise because the barometer is "high as a cat's back."

Atmospheric changes frequently come with little warning. A sudden veering of the barometric needle upward may occur at any time, bringing several hours of fine fishing when luck has been poor. A midday decline, on the other hand, will be found to blot out fishing completely, after a fore-noon of good catches.

At Eagle Lake, Ontario, Dale Clark had great sport with thirty-pound muskies on a Fall fore-noon. Eagerly he resumed his quest after lunch, but the "Tigers" had vanished. There was not a solitary strike.

A group of Indians, rigging set-lines along the shore, explained: "Storm coming." The late afternoon sky was as cloudless a gem as it had been in the morning. But at 2 a. m. a storm broke, toppling trees on the tent of the party's island camp, and all that prevented the washing away of their motorboat was the fact that it was high on a rock on the lee shore.

In furtherance of the revolutionary findings of the first year's fishing-by-barometer tests, fishermen in additional sections of the country have been invited to cooperate this season to add to the tally.

Says Charles E. Wheeler, Stratford, Conn., who makes his own trout flies:

"There doubtless is something relative between the activities of fish and the weather, for I recall that when I used to fish commercially it was a fact that on the day preceding an easterly storm all surface feeding fish would bite ravenously, fill up and then disappear until after the blow had subsided. The approach of an easterly storm in this vicinity is usually indicated by a rising barometer and an exceptionally clear atmosphere."

To a rare few of Nature's noblemen, communing with the out of doors, the enjoyment of solitude or the lapping of wavelets on sun-kissed rocks is ample compensation for fishless days. But to the great majority of anglers there is scant comfort in not catching fish.

It is now possible, with every fisherman his own "weather expert," to toss into the discard those dreary hours in which he knows fishing "will not be worth a tinker's dam" is the claim.

## LYCOMING ANGLERS VIE FOR PRIZES

The Consolidated Sportsmen of Lycoming County announced that anglers having fish to enter in the association's annual competition must have membership cards to show when they present their catch for registration.

Because membership books were not generally distributed prior to the opening of the trout season, permission was given to accept fish for measurement without evidence of membership in the association, such membership to be acquired subsequently to make the fish so entered eligible for the competition. May 15 was set as the deadline for registration in this form. After that date, proof of membership must accompany the entry.



## UNAMI SPORTSMEN SPONSOR BOXING

At their meeting on June 2, the Unami Fish and Game Protective Association members heard reports indicating that their fellow citizens in Emmaus are solidly behind them in their efforts to replenish the eye glass fund. This is to be accomplished through sponsoring an amateur boxing tournament in the Allentown Fair Grounds.

Vice President Harlem Weaver was in the chair in the absence of President Jesse DeEsch, who was confined to his home with illness. Mr. Weaver is also the chairman of the Boxing Committee, the other members being John O. Romig and Ralph "Ted" Weidner.

Mr. Weidner is also a member of the school board. The purpose of the Unami Eye Glass fund is to purchase glasses for school children who need them. Dr. R. S. Aurande is the examining physician. Mr. Weidner discussed the worthiness of the cause and stated that the teachers and educators generally, as well as industrialists and the business people of Emmaus were solidly behind the venture.

Charles W. Ettinger, publisher of *The Little Stick & News Digest*, sponsor of the amateurs, assured the club members that a stellar array of amateur boxing talent would compete, including several golden glove champions. "You are not over-emphasizing if you assure your friends that they will see the finest amateur boxing bouts ever presented on one program in the Lehigh Valley," Ettinger told the sportsmen. He added that the round dozen bouts presented, were enough of a magnet to draw an exceptionally large crowd. "Every extra ticket you sell means that much more for the fund," he said.

Among Emmaus boxers who were to appear are Max Schantzenbach, the light heavyweight hope and Johnny Tomasic, crack lightweight.

The secretary was instructed to write to the Fish Commission relative to reported pollution of Indian Creek. The fish committee reported planting cat fish and yellow perch in Stahl's dam and yellow perch in Smoyer's Mill dam and Indian Creek Dam.

Walter C. Busby and Clarence R. Ritter were admitted to life membership.

Clinton Knoll Jr., and Andrew Jasper constituted the committee in charge.

## HOMEMADE LURE LANDS BIG TROUT

Using an artificial crayfish fashioned from a bit of wood and old rubber, C. Edward Witmer, of Lancaster caught a brown trout in Donegal Creek, Lancaster county, that measured 22 inches and weighed four pounds and three ounces.

Witmer had used flies for bait without success and then resorted to his home-made lure fashioned during the winter with the aid of a pen knife.

Robert Haller, Ephrata, reported that he landed a brownie in Indian Run that measured 19 $\frac{7}{8}$  inches and weighed 2 $\frac{3}{4}$  pounds.

Earlier in the season George W. Kaley, Mount Joy R. D. 1, caught a brown trout in Wolgemuth's Run that measured 24 $\frac{1}{2}$  inches and weighed four pounds and 13 ounces.

## JUNIOR PROJECT OPENED AT MILTON

The Milton Fish and Game Association's young anglers' Paradise was scheduled to open on June 10 at 8 a. m. for the youngsters of Milton and vicinity between the ages of 6 and 16 years.

The Sportsmen's Association, with the co-operation of the Fish Commission, had been active for several weeks in stocking the pond with a sufficient supply of fish for the opening. A number of these fish were obtained from the Fries pond north of Milton through the co-operation of John Cooper, the present owner. About four weeks before more than 2,000 bluegill sunfish were donated by Philip Knouse, of Bloomsburg R. D.

It is only through the fine work of the association that this worthy project was carried out. Any sportsmen interested in this work can do their part by getting in touch with the officers or members of the association and becoming members.

It is the desire of this association to furnish a place for the youngsters of the vicinity to enjoy good fishing and be taught good sportsmanship. It is felt that if a boy or girl is given an outlet such as this in the channels into which he or she would naturally stray, many of the problems of juvenile delinquency would be solved.

The pond has been posted with the rules governing its use and older members will attend to the gentle reminders that some forgetful young Waltonians disobey. All angling must be done from the bank—no boy will be permitted to wade in to release a hook or for any other purpose. No boats or rafts will be allowed on the pond. Only barbless hooks or regular hooks with the barbs removed may be used, with only one line, rod and hook allowed for each person fishing.

Each person fishing must become a member of the Junior Sportsmen's Group and will pay the small dues of 25 cents per year. For this he will receive a card and be eligible to participate in all activities of the junior association, such as nature study, conservation and sportsmanship. Parents may have no fear in giving their children permission to become members of the junior group as older members will be at the pond.

## TROUTING "FORMULA"

The secret of catching big trout, says Ed Kindred, Bell Telephone lineman and expert angler of 327 Laurel street, this city, is (first) to go where they are and (second) to get there when they are "on the feed," according to Jack Richards of Pottsville.

Kindred should know, for he catches more big trout on flies than any other angler in this county, asserts Richards.

He takes most of 'em in the Lackawaxen River way up in the northeast corner of the state, also the Lehigh River above Whitehaven, and occasionally from Broadheads Creek, near Stroudsburg. Give him those three streams and you anglers can have all the rest of them in Pennsylvania, he says.

His friends, who number some expert fishermen, often wonder how he does it, but when Ed comes home from a trip they know they can safely bet that he will have trout that measure over 20 inches in length and weigh from tree to four pounds apiece.

Ed has been fishing flies both wet and dry for about 25 years. The first fish he ever caught on a fly were crappie bass in the Lehigh River. He made the fly himself from cord string tied about a hook and a gray hackle feather he plucked from a rooster in a farmyard nearby. He caught the fish so fast, he says, that the fellow with him could not string them fast enough and finally gave up in disgust, thus ending Kindred's fishing.

Kindred has used worms and bait during his years as a fisherman but not within the past fifteen years. His early fishing friends had a hard time changing him over to fly fishing, but now he wants nothing better. His favorite kind of fishing is with a dry fly but he uses both wets and dries through the season and has a couple of patterns he calls killers.

Ed started out like most fishermen, by accumulating a huge pile of flies and then over a period of years gradually discarding them. He ties all his own flies and that he is an expert at it is attested by the catches of trout he makes.

If Nature had hung men's arms so they could pat themselves on the back, what a demand there'd be for two-coat suits!



V-type and inverted V-type current deflectors constructed in Fishing Creek, Lancaster county trout stream. This stretch of water was formerly shallow and sluggish.



## FISHING BILLS PASSED BY ASSEMBLY

The following bills were passed at the last session of the Legislature affecting the Fish Commission and are now in the hands of the Governor.

### SENATE BILL NO. 160

This is a bill covering general amendments to the Fish Code.

Briefly, the amendments are as follows:

Section 20—Taking rock bass from protected class.

Section 30—Removing size limit on rock bass.

Section 40—Creel limits have been made to agree with rules and regulations as set up by the Board.

Section 220—Allows residents and non-residents to secure a new license for fifty cents upon affidavit when both the license and button are lost.

Section 251—Provides a penalty of \$10. for each fish in possession contrary to rules and regulations as set up by the Board.

Section 255—Clarifies closed streams section so that Board may prescribe method of advertising.

Section 265—Provides for the taking of baitfish and fishbait on Sunday.

Section 285—Provides for the purchase of land and waters by the Fish Commission.

### SENATE BILL NO. 982

This is a bill authorizing the Board to issue permits for certain nets and making it unlawful to make, sell, or purchase certain nets and provides penalty.

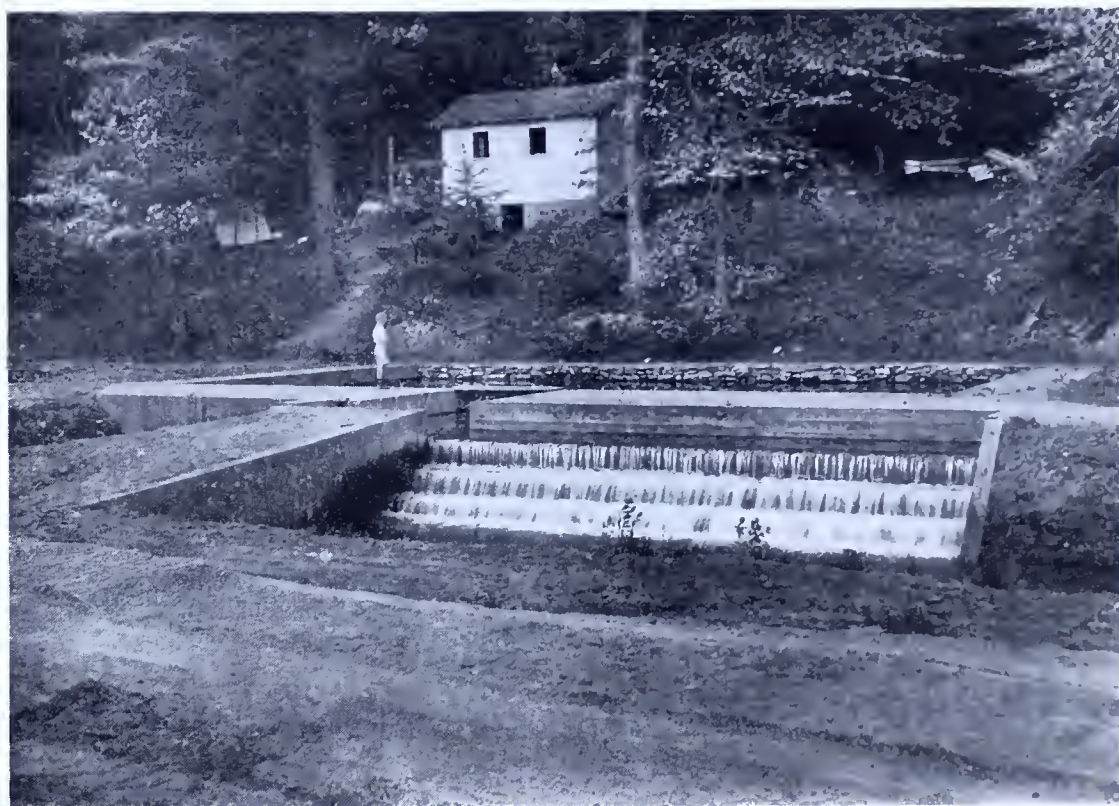
The amendments are as follows:

Section 53—Net permits. The Board may issue permits to make, sell, or possess nets larger than four feet square or four feet in diameter. Such permits when issued shall specify when and where such nets shall be used by the owner or the persons in possession thereof.

Section 54—Nets unlawful without permit. It shall be unlawful for any person to make, sell, or have in his possession a net larger than four feet square or four feet in diameter without a permit issued by the Board. The possession of a net without a permit therefor shall be prima facie evidence of the violation of this section.

Section 55—Penalty. Any person violating any of the provisions of Section 54 of this Article shall upon conviction as provided in Chapter XIV be sentenced to pay a fine of not less than one hundred dollars (\$100.) nor more than two hundred dollars (\$200.) and to undergo imprisonment for a term of thirty (30) days for each violation.

The following bills introduced affecting the Fish Commission, either remained in committee or were killed on the floor.



This giant limestone spring feeds many of the trout ponds at the Spring Creek project.

### HOUSE BILLS

No. 224—This bill was introduced by Rep. Boose, Somerset County which made it illegal to issue a fishing license to persons over twenty-one unless they had paid their per capita school tax.

No. 510—This bill was introduced by Rep. Alspach, Lancaster County, amending Section 12 of the Act of May 2, 1925, permitting the use of goldfish for bait providing they were not of a red or gold color.

No. 511—This bill was introduced by Rep. Krise, Clearfield County, amending Section 310 of the Act of June 22, 1937, known as the "Purity of Waters Act." Under the amendment clay mines were exempted.

No. 569—This bill was introduced by Rep. Reagan, Union County, setting forth that owing to the high cost of food, etc., living expenses of our citizens can be reduced if they are permitted to catch fish with outlines, set lines, etc.

No. 570—This bill was introduced by Rep. Reagan, Union County, amending Section 220 and 225 of the Act of May 2, 1925, and permitted County Treasurers to appoint the various issuing agents for the issuing of fishing licenses.

No. 945—This bill was introduced by Rep. Gates, Armstrong County, amending Sec-

tion 265 of the Act of May 2, 1925. It provided local option for Sunday fishing.

No. 1328—This bill was introduced by Rep. Taylor, Dauphin County. This bill provided for the appointment of a new Commission which would appoint an executive director who would take the place of the Commissioner of Fisheries.

### SENATE BILLS

No. 206—This bill was introduced by Senator Wolfenden, and provided that all applications for licenses or permits must be accompanied by a per capita school tax receipt for the last calendar year. The House amendment to the bill exempted Hunting and Fishing licenses.

No. 491—This bill was introduced by Sen. Dent, providing and regulating fishing in reservoirs used for public water supplies.

No. 997—This bill was introduced by Sen. Tallman, amending Section 220 and 285 of the Act of May 2, 1925, P.L. 448. This bill increased the fishing license fee from \$1.50 to \$2.00, provided that the sum of fifty cents from each resident fishing license be used exclusively for the acquisition in the name of the Commonwealth by purchase or lease of public fishing rights and privileges in any of the rivers, streams, lakes, or ponds in the Commonwealth.

### BOARD OF FISH COMMISSIONERS

HARRISBURG, PA.

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## DYNAMITE TROUT, PENALTIES HEAVY

Samuel L. McMullen and Clifford Varner, both of Tyrone, found it didn't pay to dynamite a trout stream. The former was fined \$100 and costs at a hearing before Ralph Galbraith, Huntingdon justice of the peace, and Varner was sentenced to 103 days in the Huntingdon county jail because he couldn't pay the fine of \$100 assessed against him.

Both were required also to pay the costs which amounted to \$6.50 and \$2.50, respectively.

The men were charged with dynamiting Spruce creek, Huntingdon county, on the premises of the Spruce Creek Rod and Gun Club on the night of March 30. Arrests were made by Lincoln Lender, fish warden in the Huntingdon district, who also prosecuted the men.

Lender said a third member of the party had not yet been apprehended. He also said both McMullen and Varner had served time in jail for killing deer illegally.

## ANGLERETTE OUTSCORES VETERAN ANGLERS

Friends of Bert Ackerman and Ed Brent are chuckling over the best fish story of the year. It appears that Messrs. Ackerman and Brent, Altoona hunters and fishermen of considerable experience, agreed to teach Miss Lucille Sheehan, secretary to State Senator Charles R. Mallory, some of the pet methods of luring the wily trout to the landing net. Miss Sheehan, also a fisherwoman of some experience, was willing to learn some of the fine points of trout fishing so the trio spent a day on Spring Creek in search of the speckled beauties.

The two men were successful in landing a fair-sized sucker, but Miss Sheehan landed her legal limit of ten trout, and what trout they were. The smallest trout in the catch was a beautiful rainbow measuring ten inches in length and the largest was a fine specimen of brown trout measuring fourteen inches. Experienced anglers who saw the catch pronounced it the best they have seen in years.

## NEW KENSINGTON PROJECT STOCKED

Kiddies of New Kensington should have a fine time during the opening weeks of the "junior fishing paradise" season at Memorial Park. More than 2,000 sizeable carp were placed in the lagoon on June 1 by fish commission attaches, aided by members of the junior patrol.

Fish Commissioner J. F. McKean, who has been vitally interested in the park project along with Izaak Walton League leaders, to whom the shipment was addressed, in addition to city officials, pointed out that the shipment was larger than all received last year.

Rev. R. V. Hartman, councilman in charge of the park, said that he believed Monday and Friday would be the most suitable days for fishing at the park and that he would ask Waltonians, in drawing up their annual code, to include those days. It was believed the "paradise" would open in mid-June, possibly on Flag Day to add emphasis to the observance of that holiday. It has been suggested by Mayor Reeser that the lagoon be opened for fishing on that day about 4:15 p. m., and that the period end with a ceremonial of lowering the flag with a bugler's taps and a band concert. A brief patriotic address by some speaker would be designed to reach the youngsters present.

"Licenses" are being sold for the "paradise" at the New Kensington police station, similar to the set-up of last year. Receipts were to be issued pending arrival of the buttons.

Last year more than 2,500 youngsters secured "licenses" to fish in the lagoon, the restrictions of which are similar to those of the Bellefonte "fishermen's paradise" for adults.

## FLY LINES

Comments Michael Seaman in his fine outdoor column in the *Harrisburg Telegraph* apropos of fly lines:

Proper line, level or tapered, depends on the rod action. The average fly rod used for all-round purposes—bass, trout, panfish — weighs anywhere from 4½ to 6 ounces. Nothing lighter than a D level is good for a rod of this type. To be more exact, the following

specifications are based on a study made by a nationally known line manufacturing concern.

Choose HDH or D level for a medium bass or heavy trout rod with stiffish action, good "backbone" and weighing from 4 ounces up.

Choose HEH or E level for standard action rods of 3 to 4 ounces; or for softer, whippier rods up to 4¾ ounces.

Choose F level for those "fairy wands" of 2½ to 3 ounces with stiffish dry fly action. If the rod is very whippy, a G level may work better.

Quick taper or torpedo lines most generally used are the HCG size, which corresponds for use intended of the HDH double taper.

Diameter sizes of level lines are: H-25/1000-inch; G-30/1000-inch; F-35/1000-inch; E-40/1000-inch; D-45/1000-inch; C-50/1000-inch, and B-55/1000-inch. A thirty-pound test line is of the same diameter as a G level line. That's a pretty good indication of the strength of fly lines.

## APGAR PRESIDENT OF TOWANDA CLUB

The directors of the Towanda Gun club have elected Merle R. Apgar president for the coming year. He succeeds Russel H. White who has been president of the organization for some time past. William Platt has been chosen vice president; Harry N. White has been re-elected secretary and William F. Dittrich has been re-elected treasurer.

Members of the Board of Directors are F. D. Montanye, E. E. Voorhis, William Platt, Merle R. Apgar, B. F. Crossley, C. R. Lewis, Gerald Moore, William K. Breen and Louis Barnes.

President Apgar has named the following committees to serve through the coming year:

House Committee—William Platt, Mark Hagerman, Fred J. Schaffer.

Shooting Committee—Gerald Moore, Louis Barnes, Dr. S. B. Black.

Fish Committee—William Platt, James Meredith and Ray Finlan.

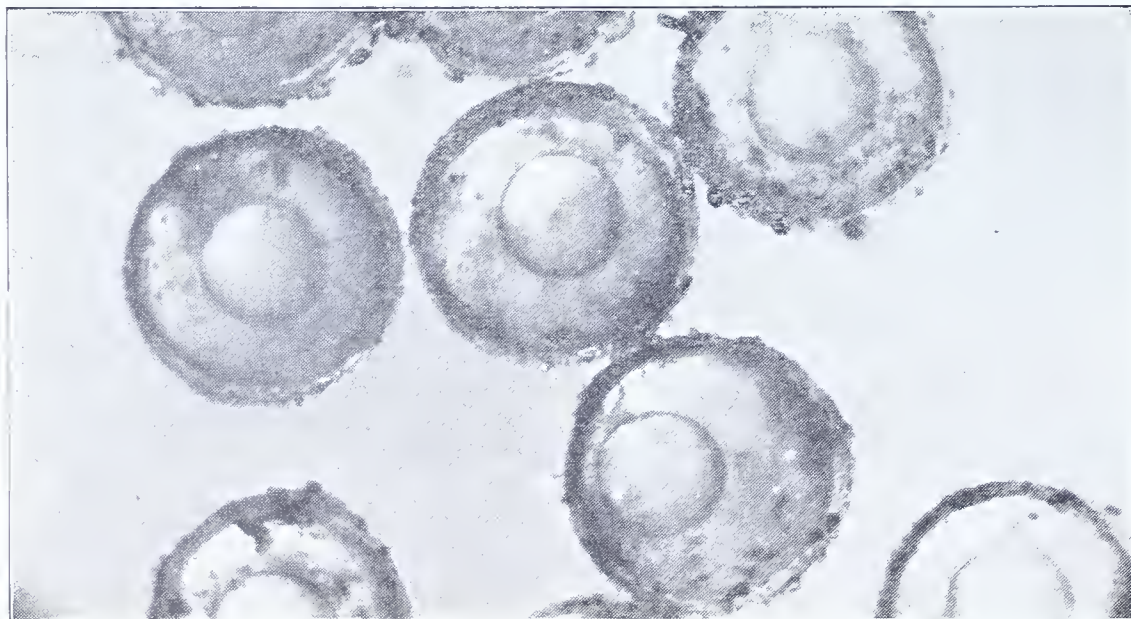
Membership Committee—E. E. Voorhis, George Smeaton and Vincent Connor.

Legislative Committee—F. D. Montanye, Robert Bennett, and Stewart Borger.

The club now has a membership of more than 200 and is very active in securing fish and game for restocking purposes. During the past year, the club has aided in stocking 8900 rainbow trout, 2000 brook trout, 2000 brown trout—all legal size; 5000 fingerling brook trout; 20,000 pike perch fry; 2500 bullheads, or catfish; 100 pickerel 16 inches in length; 6000 blue gills; several cans of minnows and 1000 black bass.

Several hundred rabbits and 400 ringneck pheasants have also been released in the past year through the efforts of the Towanda Gun club. The organization is continuously working for the interests of the sportsmen and has accomplished much.

Just how extensive the conservation efforts are in this state is shown by a report of the Game Commission which shows that during 1938 the amount of game killed for food purposes was 9,426 tons.



Eggs of the smallmouth bass, (highly magnified.)



De worm she is a funny thing;  
He got no leg, no arm, no wing;  
She got no leg, but he can walk;  
He got a mout,' but she can't talk;  
She walk with no leg on de groun';  
Back and 'fort,' and don't turn roun'  
He built so clos' down to de dirt,  
If she fall down, he don't get hurt;  
An wen she whoa an back he go,  
Wher' is hees head, I lak to know?





## HERE <sup>AND</sup> THERE IN ANGLERDOM



The Harrisburg Hunters' and Anglers' Association is sponsoring a fishing contest this year. Opening on April 15, the first day of the trout season, the contest will close on November 30, ending of the season for bass and warm water game fish. Prizes will be awarded for top fish of the following species: brook, brown and rainbow trout, pickerel, wall eyed pike, smallmouth and largemouth bass, catfish and carp. A watersnake contest for boys is also being sponsored by this live-wire sportsmen's organization. For every boy who presents as evidence 15 watersnake heads to officials of the association or fish warden, a free fishing trip to the Spring Creek Project of "Paradise" in Centre county will be arranged.

A most interesting communication was received the other day from Shirley Hulse, ardent Bedford sportsman. We quote: "Thursday morning I picked up a good sized snapper on a highway by a big millpond, evidently looking for a place to lay her eggs. It was about 30 hours till I had time to take the turtle apart and the turtle spent the interval on the tirechains in the back of the car. There were 17 fully developed, ready-to-lay eggs and the shells were all *hard*—as unyielding to the touch as a hen's egg. I had the general impression that all turtle and snake (reptile) eggs were alike and would give under finger pressure, with the exception of alligator eggs which I have seen dug out of gravel bars in central America with shells even harder and thicker than hen's eggs. I might add that an alligator egg is the one thing I ever tackled when *hungry* that I couldn't go—all yoke and sulphur—but the natives regard them as delicacies and hate to give any up."

You probably have already read in this issue William R. Walton's splendid article on hair minnows for bass. Apropos of their use, Mr. Walton writes: "My experience with this particular type of lure has been with largemouth bass in lowland ponds that contain fish running up to 5 pounds and over. Most of these ponds are weedy, some of them so much so that they cannot be successfully fished with casting rod lures because of the fine weeds such as sago pond weed and hornwort fouling the large hooks carried on most of such lures. Many of these ponds can be waded with good effect and the open spots among the water-plants fished with light single hook lures cast with the fly rod."



Bobby Steinmetz displays a 19 inch brown trout taken on No. 14 fly in the Little Lehigh by Howard Gangwer, Allentown.

While fishing at Penn Manor Lake near Tullytown for smallmouth bass, Lloyd DuBois of Merion had an experience that will linger long in memory. DuBois had taken five nice bass, two smallmouths and three largemouths on a light casting lure. "After landing the fifth bass," he writes, "I was going to fish a little longer, intending to release any other fish caught. However, on the next cast, something snagged and the line stopped suddenly. The lure? That's still goin', I think. Honestly, that was the first time I ever lost a good plug and didn't feel bad about it."

One of the nicest rainbow trout to be taken at Spring Creek project this year, reports Fish Commissioner Fred McKean of New Kensington, was the fish landed by Chester Heidel of Brackenridge. The rainbow was 23 inches in length and weighed 4 pounds 4 ounces.

The ANGLER is always happy to present reports on bass catches made in Lake Gordon, Bedford county largemouth water, because it exemplifies just what a good food supply in bass waters can mean in producing heavy, ideally conditioned fish. Warden Harry Moore of Hopewell submitted the following catch chart of H. W. Hardy, Belle Vernon, in Gordon last season. Let it tell the story: (1) Two bass, length of each 17 inches, weight for each, when dressed, three pounds. (2) Two bass, length each 14½ inches, weight each, dressed, two pounds. (3) Two bass, length each 13¾ inches, weight each, dressed, two pounds. (4) Two bass, each 19 inches, weight of each five pounds, one, 20 inches, five pounds.

According to Warden Sam Henderson of Greensburg, a fine brown trout was taken at Ligonier in the Loyalhanna Creek by David Kinsley of Ligonier Township. Kinsey scored the catch, an 18 inch brown trout weighing two pounds 4 ounces, on a spinner.

Veteran angler James Walters of Foul Rift on the Delaware River annually catches some fine bass in that great stream. Last season he was reported to have landed a smallmouth bass 23 inches in length and tipping the scales at nearly six pounds. Crayfish are his favorite lures.

Ranking with the largest smallmouth bass taken in Pennsylvania waters last year was the smallmouth taken in Sweet Arrow Lake, Schuylkill county, by Tom Hirst, Jr., of St. Clair, according to Warden Anthony Lech of Cressona. The fish tipped the scales at 5 pounds 2 ounces. Lech informs us that an abundant supply of food is present in the lake and that removing any bait fish or fish bait from that body of water is prohibited. Each year some exceptionally fine smallmouth and largemouth bass are taken.

Plugging scored a mighty fine bass catch last season in Lake Wallenpaupack for William Weaver of Orwigsburg, according to Warden John Schadt of Lake Ariel. Weaver's catch was a 22 inch largemouth bass having a girth of 16 inches and weighing 6 pounds 8 ounces.

Mrs. Kathryn Diller of Kinzer, R. D. 1, is a bass enthusiast, according to Warden Bill Wounderly of Reading. Last year she scored a catch of two fine smallmouth bass while fishing in Octoraro Creek. The fish measured 16¾ and 14½ inches respectively.





# Fly Tying

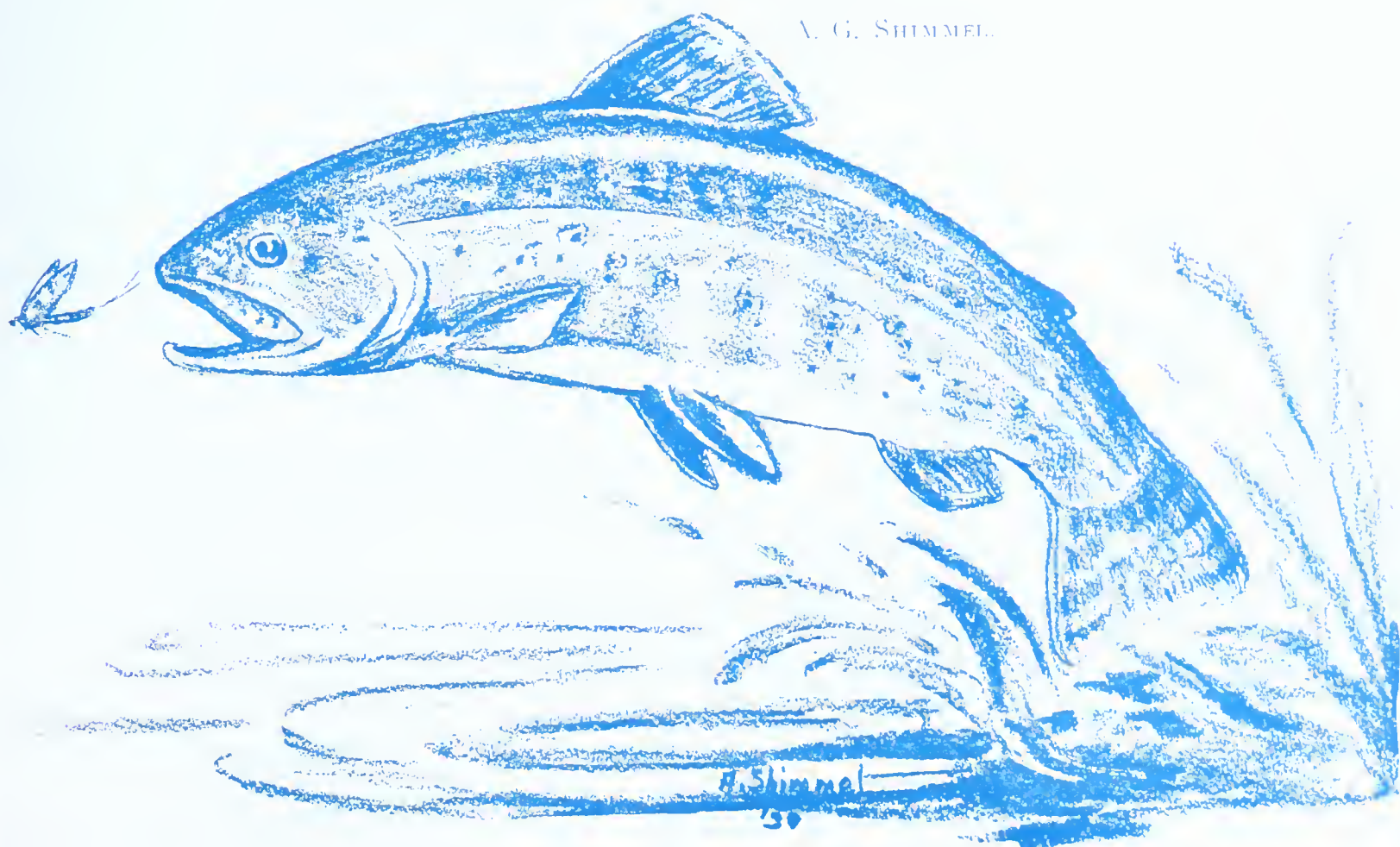
My table is littered with feather and silk  
Of various colors and shades.  
There's fur from the rabbit, the squirrel and the deer,  
And scissors with delicate blades,  
A small pair of tweezers, a vise and some wax  
And varnishes glossy and white.  
There's hooks of all sizes and shapes in a box  
And tinsel all shining and bright.

With these things I fashion the delicate flies  
While out-doors the winter winds blow,  
As I sit there and work in glow of light  
I think of the places I know,  
How sunshine turns silver on rippling streams,  
How evening turns silver to gold.  
The tint of water o'er moss covered stones  
And trout that the amber pools hold.

A Cahill I'll make for deep glassy pool,  
The home of a grumpy old brown;  
And a small Gordon Quill, a brookie to take  
At Rock Pool where white waters frown.  
This one to the rainbow that rose to my fly  
And fought with abandon and skill  
And lost, to his memory I fashion again,  
His favorite, Dark Ginger Quill.

And so the whole evening I sit in my chair  
There dream of the battles of yore,  
And see in my mind the tall pines and the streams  
And listen to white waters roar.  
These pleasures I know though it's winter out-side;  
What more could a fisherman wish?  
And so I can say though it's often been said,  
"There's much more to fishing than fish."

A. G. SHIMMEL





## **Bass Fisherman's Slogan - -**

**Use Live Bait SPARINGLY;  
Unhook Small Bass CAREFULLY.**



# PENNSYLVANIA ANGLER



SCALE CARP

AUGUST 1939

TEN CENTS



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## EDITORIAL

### Hatchery Expansion Program

**I**N KEEPING pace with the ever increasing popularity of fishing in Pennsylvania, your Fish Commission has now in effect a tremendous hatchery expansion program. We have had an increase of approximately 135,000 licensed fishermen in the past two years, and present indications lead us to believe 1939 will be an all time high in the sale of fishing licenses. Our program, under WPA Projects, calls for the expenditure of approximately \$100,000 of the Fishermen's money, the entire program costing half a million dollars (\$500,000).

We are indeed fortunate in having a Governor who is a sportsman and realizes the many values derived from fishing. When this expansion program was submitted to Governor James, it was approved immediately.

The following is a list of the Hatcheries to be expanded:

Huntsdale, located in Cumberland County, about twenty-five (25) miles southwest of Harrisburg, will be one of the big factors in our program. The hatchery building, which has recently been completed, is one of the most modern in the United States, and in addition, it is planned to increase the number of ponds to approximately 190. Two years ago there were only 30. When completed, both trout and warm water fish will be propagated.

Improvements at our Reynoldsdale Hatchery will make it possible to raise both trout and warm water fish. From our experience at this plant during the last two years, large mouth bass have an extremely rapid growth, and we expect to greatly increase the production.

At Bellefonte, the program includes an experimental laboratory and a series of ponds to be used in scientific research work. Studies will be made of various aquatic life, the raising of crayfish being one of our first studies. This work will be done under the supervision of C. R. Buller, our Chief Fish Culturist.

Pleasant Mount, Wayne County, will be put in first class condition, and again will take its place as one of our first ranking hatcheries.

Large developments are also planned at the Corry and Erie Hatcheries.

A new type of refrigeration will be installed at all hatcheries—this means a saving in truck mileage of from 35,000 to 50,000 miles a year, and will insure a constant supply of fresh food for our fish.

  
Commissioner of Fisheries



# LARGEMOUTHS AND HAIR MINNOWS

By WILLIAM R. WALTON

**M**ILES of typewriter ribbon have been battered and frazzled in the controversy that has raged for years over the comparative merits of the smallmouth and largemouth bass as game fish. Experts of wide experience seem to disagree completely on this moot question but personal experience carries conviction that this question is entirely one of habitat. For example, where the largemouth flourishes under the most favorable environment he is in every way the equal of the smallmouth in gameness and action. Furthermore, under such conditions he is fully as toothsome. On the other hand, it must be acknowledged that where the largemouth dwells in turbid stagnant waters, lacking in circulation and sufficient submerged plant life to provide adequate oxygen he becomes woefully logy and often is practically inedible.

The ideal still-water habitat of the largemouth is a comparatively shallow, clear pond or lake having a gently sloping bottom and an abundant supply and variety of plant and animal life. These conditions also make for good fly rod fishing and it has been the writer's fortune to angle for this fish over a period of many years in just such waters. Under these favorable conditions, the fly rod has proved a delightful and effective weapon of offense. Wading up to my middle in the cool waters under a hot summer sun, clad in old but stout shoes, khaki trousers and a like shirt to protect my all too heliohobic hide from the darts of Old Sol, many a 4 pounder and occasionally a heavier one have fallen to my hair minnow or streamer fly.

In unwadable ponds casting from a boat becomes obligatory and under such conditions, if the fisherman is opulent and can hire a boatman, well and good, but for the majority of us the choosing of a congenial companion who will take turn-about in fishing and boating will solve this question in a most pleasant way. However, at least to my taste, fly casting from a boat, at best, is a clumsy operation that is likely to be both noisy and ineffective as compared to the wading method and certainly less enjoyable. Even icy water need not prevent wading if roomy boots or waders are worn over two pairs of heavy woolen socks. In this style of fishing it is prudent to wear an efficient pair of sun glasses as the glaring light reflected from the surface of the pond has been shown to be seriously injurious to the eyes. There seems to be no doubt that cataract is frequently the result of such exposure. For protection I have found the new paraloid glass, procurable from any good optometrist, very excellent for this purpose. So far as head gear is concerned, one of the cheap paper pulp helmets, painted on the inside with a coat of aluminum bronze, is hard to beat. These hats are fitted with a sweatband that stands out from the inside edge on spring brass brackets so that an air space of at least one-half inch remains between the head and the hat brim. You can't stick your flies in your hat band with this equipment but that is a fine method of losing good flies anyhow.

Among the most successful of lures that I have employed for this type of largemouth fishing are the hair minnows and streamer flies described and illustrated in a recent num-

ber of the ANGLER. These are constructed almost wholly of hair, dyed in various hues and often have solid heads made of plastic wood and bearing glass eyes in imitation of a minnow. As a result of experience with these, it is my belief that the texture of the hair composing the body, and which determines its action underwater, is of considerable importance in the degree of success attained with these lures. If the hair used is too stiff it will lack sufficient movement to prove attractive. When it is too limp or absorbs water freely, it does not maintain the desired shape sufficiently and when watersoaked handles with difficulty. After considering the hair of several kinds of animals including the deer, polar bear, squirrel and one known to the trade as "monga ring tail," I decided that the so-called impali tail was about the proper thing. I say "so called" because it is said and probably with truth, that these are merely veal calf tails masquerading under an intriguing foreign cognomen. In any event, this hair possesses just the right texture and sufficient length to render it admirable for the purpose. The only disadvantage in the use of impali tails is the fact that some of them have too much curl for the purpose. For the casting of such lures, which are usually attached to small spinners, the use of a six, or six and one-half ounce rod, of about 9 feet in length is advisable. It is true that lighter rods may be and are often used but they are very likely to be ruined in the game. For constantly casting hair minnows, bugs and spinners against the wind, plenty of backbone and rugged strength in a rod are necessary if it is to stand up under the strain. An oiled or enameled level line of size D or E, equipped with a 6 foot leader of synthetic gut, is quite satisfactory

for casting the comparatively long line often required in this kind of fishing. One precaution very necessary in the use of synthetic gut is to tie the terminal knots so securely that they will not pull out. If the turle or figure 8 knots are used at the hook or spinner eye, an extra single knot should be tied in the bight to keep it from slipping through. This material is much more slippery than silk-worm gut and hence most of the ordinary knots will not hold securely in it. When using a spinner my own preference in attaching the leader is to make a securely tied loop the end of which is then slipped through the eye of the spinner, and its blade is then thrust through the loop which is pulled tight against the eye. This gives a double strand at that point, which relieves the strain on the knot.

In fishing the hair minnows I wade along very slowly casting to the edges of any clumps or banks of submerged or floating water plants, allowing the lure to sink well below the surface where possible and recovering it just fast enough to cause the spinner to revolve slowly. Sometimes this is done with a steady pull and at others in a series of jerks in imitation of the movement of a frightened minnow. I have a strong predilection for a gold or brass spinner and have found the hammered brass type, such as the "Bear Valley," very effective. One must be sure, however, that the blade spins readily. It is a strange and inexplicable mystery that spinners of seemingly identical pattern will often display quite unequal abilities in spinning and one that does not revolve readily is a liability that should be promptly discarded.

When fishing in this way I have had a largemouth rush so madly at the lure as to miss it and emerge high in the air within 6 feet of



Fishing hair minnow for largemouth bass.



where I was standing, mouth and scarlet gills widely distended, and showering me generously with his spray as he plunged beneath the surface. Upon another memorable occasion, while casting toward a sunken, but barely floating log, I was astonished to see a largemouth leap out of the water on the far side of the log, and describing an arc over it, hit my spinner fly as he descended. The idea expressed by some writers that largemouth bass do not leap when hooked is, I believe, based on a lack of experience with this fish under sufficiently varied environments. For instance, William C. Harris, in his charming work on the basses<sup>1</sup> says, "Much has been said and written, pro and con, as to the largemouth bass leaping into the air when hooked. They certainly do not do so, even semi-occasionally, in my experience, on waters east of the Alleghenies." My own experience is in emphatic disagreement with this statement, as in some Atlantic Coastal ponds, the largemouths when hooked almost invariably leap into the air and sometimes repeatedly.

In other ponds, however, no leap has ever been observed by me. Just what the cause of this difference in behavior is does not appear but apparently it is due to some peculiarity of local environment. Slightly brackish water is not only well tolerated by largemouth bass, but seems to increase their vigor. Some tidal ponds of my acquaintance, containing an abundance of plant and animal life, shelter the fighting bass I have ever encountered anywhere. In these are large beds of submerged plants, in from 2 to 7 feet of water, where the big fish can hide and watch the surface of the openings in the weeds for their prey. In a particular pond of this type which I fished for years, contrary to common experience, it is useless to cast a fly before the sun is well risen and equally futile to do so after it has set! My best results here have been in the bright light of mid-day. Here again is evidence that local environment determines the behavior of the fish.

Other than the edges of weed banks and openings in patches of water plants, one of the most productive locations for largemouth in pond fishing with hair flies has been a stump or partially submerged log, particularly where the latter projects at an acute angle with the surface and thus overhangs it. Such spots seem to have strong attraction for foxy old bass probably because they afford hideouts from which the surface may be watched for the advent of dragon flies and incautious minnows. Such locations should receive the most meticulous attention of the fly fisherman as they frequently yield rich rewards. He should remember however that hooked fish instantly dash for cover and be ready to prevent if possible the fish from snagging the leader on the afore-said log. One of the most disconcerting occurrences that can happen in such locations is to have a good fish strike just as one is about to lift the fly from the water. In case the rod happens to be close to the vertical at that moment, it is just too bad! A slack line and a lost fish are very likely to result. Of course, good casting technique forbids any such contingency, as the rod tip then should not much exceed 45 degrees with the surface of the water. But, when one is wading waist-deep and perhaps, as well, must watch his back-cast, it is not always either convenient or easy to maintain the proprieties of nice casting. Two indispensable essentials of the bass fly rod enthusiast are persistence and faith, persistence



One of the finest largemouth bass to be taken from Lake Gordon was this 6 pound fish caught by Carl Walters, Bedford county sportsman, on the fly rod.

in keeping his fly in the water and faith that he can rise a fish.

"There is one there and I can *make* him hit," is a slogan that catches 'em where they ain't. Although it is true that the initial cast may rise a fish, frequently a well educated and portly old bass will require 20 or more casts to raise his dander to a point where rage overcomes intelligence and he gives way to an overwhelming desire to "smash that damned thing." And don't forget that such a fish will usually strike again even after being hooked and escaping. It seems doubtful whether the tissues in the snout of a bass have much sense of feeling as I have several times caught fish that had obvious large hook holes in this location. It is fruitful practice to watch for rising fish and cast to such rises. A bass that is feeding at or near the surface, usually can be induced to strike the fly. When this occurs the fish should be struck firmly but played gently thereafter, if possible. I say "if possible" because not infrequently especially in weedy patches, after being hooked a wise fish will bore persistently downward attempting to brush or pull the hook loose against the coarse stems near the bottom. When this occurs, the best course is keep his head up near the surface at all costs, even though this incur the possibility of dislodgment of the hook when the fish rushes toward one. When a strong, freshly hooked fish succeeds in fouling the line around the bases of coarse water plants, the chance of landing him becomes unco-poor.

Exactly the best manner of handling a leaping bass on a fly rod and light tackle, presents, at least to my experience, an unsolved problem. There are so many possible contingencies,

so many variable factors involved, that it does not seem practicable to suggest any hard and fast rule. Some authorities contend that during the leap, strain should be exerted sufficient to turn the fish while in the air to prevent the casting of the hook during the period of his violent oscillation that invariably follows emergence from the water. This may succeed at times but I still have poignant recollections of losing the largest fish raised last season by just such tactics, when the spinner shaft snapped in two and the fish departed with my lure.

My usual practice, and I believe the safest one, is to maintain only a reasonably tight line and let the fish shake himself as he will. It is much more difficult to dislodge, in this way, a light lure or fly than is the case with a heavy casting bait that can be torn loose through the action of its own inertia.

I believe fly fishermen generally recognize the necessity of clear water for the successful practice of their hobby. But it seems doubtful whether many realize the important part played by submerged water plants not only as an aid to clear water but in the actual sustenance of the bass that render fly fishing the most exciting and interesting of sports. True, the bass is a strictly carnivorous fish, but the law of "All flesh is grass" applies equally well to fish as to animals on dry land. Submerged water plants, particularly those possessing finely divided leaves, present comparatively enormous surfaces to the water and not only act as filters for its solid content but they sustain millions of minute plant and animal life (the plankton) which furnish food for the little fish that, in turn, fall prey to the big ones. In addition to this such plants give off abundantly, into the warm clear water, the life-sustaining oxygen which reddens the blood in the big gills of the largemouth bass which in turn, provides that savage pep we all acclaim. Thus any influence which tends to destroy to any great extent, submerged waterplants, will eventually ruin the fishing. Think of this when next you are tempted to cuss out these fine weeds for fouling your hook. Lily pads are indelibly associated in our minds with leaping largemouths and undoubtedly do furnish shelter for them but it is these less conspicuous, submerged water plants, such as the sago pond weed, coontail, milfoils and wild celery that are really important to fish life. As Dr. James G. Needham says<sup>2</sup> "These plants contribute largely to the richness and variety of life in the pond, by offering solid support to hosts of sessile organisms both plants and animals. Their stems are generally quite encased with slime-coat algae, rotifers, bryozoans, sponges, egg masses of snails and insects and dwelling tubes of insects."

One often hears the German carp anathematized as destroying the spawn of game fishes, but I believe that the chief damage these hogs of the water do in ponds is the destruction of submerged aquatic plant life through their incessant rooting and stirring of the muddy bottom. The muddy water thus produced not only inhibits fly fishing but effectually prevents the growth and renewal of submerged plant life by cutting off their supply of life-giving sunshine.

<sup>1</sup> *The Basses Fresh Water and Marine*, by William C. Harris & Tarleton H. Bean, Frederick Stokes and Company, N. Y., 1905.

<sup>2</sup> *The Life of Inland Waters*, by James G. Needham and J. T. Lloyd, Comstock Publishing Co., Ithaca, N. Y., 1930.



# BASS LURES--WET AND DRY

By CLAYTON L. PETERS

THE month of July usually marks the transition for many fishermen from trout fishing to the heavier tackle usually employed in the quest for bass. While there is a certain finesse to fishing a very small dry fly, bent to the end of a very fine tippet that requires delicate handling and extreme adeptness to properly manipulate it in order to cater to the whims and fancies of a veteran brown trout, bass fishing is more intriguing because it offers a wide variety of methods of attack. Plug casting, bucktail and streamer fishing, and surface or dry fly casting all have their merits and can be used to good advantage at some time or another, under proper conditions.

For real sport and excellent results, a light weight, rather whippy, casting rod will supply all the thrills necessary to excellent bass fishing when plugging is in order. A five and one-half foot casting rod with plenty of whip will accommodate the light weight plugs that are becoming more popular every year. It appears that the light weight plug more closely imitates the natural food of the bass family and consequently induces more strikes. There is on the market today, a small plug of the transparent variety that will take both small and big mouth bass with uncanny certainty. Its light weight makes it possible for even a novice to cast it successfully without a great deal of disturbance when it strikes the water. I recollect twice in one day last summer on Harvey's Lake I had connected with a large mouth bass before this little lure had traveled two feet. I actually believe those fish saw the lure before it descended into the water. Figures 1, 2, and 3, depict light weight small lures that have earned a permanent berth in my tackle box.

There are times when the bass fisherman can derive unlimited pleasure from the use of the fly rod and I have learned to carry equipment for any emergency in case the plugging outfit should seem necessary. My preference, never-the-less, is for the fly rod, whether underwater lures or floaters are necessary.

Bucktail and streamer fishing for bass is in a class of its own and is certainly deserving of a lot of attention by the conscientious angler who has learned that by the conservation of the baitfish in our streams we are going to enjoy better angling and insure our streams against food shortage so that our posterity may also enjoy the heritage that we are custodians of for the present. Bucktails and streamers may be made to perform according to water conditions and the will of the angler. In torrid weather when the fish have sought out the cool deep waters they can be approached by using extra weight attached to the leader, about fourteen to eighteen inches above the lure. Oft times the bass will feed in the fast runs or along shore in the evenings when minnows can be added to their bill of fare. The bucktail can be used to good advantage when this is the case, and little if any weight is used, as the bass strike almost convulsively, very often at the instant the lure is in motion.

Bucktails and streamer flies should always be tied on straight eyed hooks so that, if necessary, a spinner can be added. In a previous article, I had illustrated three types of spinners that

are highly adaptable for a combination with either a bucktail or streamer. They are the tandem, triangle, and spoon shape spinners. A number two size, spoon type in copper seems to give as good results as any in the Juniata river. The triangle shape spinner as used on the weazel minnow made of copper and a bit larger than the size attached to the baby weazel is the one best spinner we have been able to find. Some fishermen use the gold spinner in preference to all others, but I do not like too much flash and the copper seems to fill this requirement very nicely.

Of the entire list of bucktail lures there are three outstanding patterns that apparently have special bass appeal as far as our experiments and findings are concerned. A good rule to remember in the selection of any bass lure of the under water variety is that action is one of the prime considerations. We are also convinced without doubt that a bit of red on under water lures is a big help in inducing bass to strike, especially when they are not in an over ambitious mood. Red on a bass lure seems to have the same effect as a red flag waved at a bull. Color plays a prominent part in our lives, and we unconsciously respond to certain colors with neither a forethought or realization of the effects. For instance, the extreme heat of summer would be almost unbearable, were it not for the diverse shades of cool green color that surround us. Just as blue and purple lend serenity and poise, yellow is suggestive of envy and hate; orange color, deep warmth, so red seems to induce madness, and this seems true especially in the family of bass, both big and small mouth, so in Figures 4, 5, and 6, the reader will notice the presence of red in each of the patterns described.

Action can be brought about by two methods. One is in the construction of the lure itself and the other by the manipulation of the handler. Streamer feathers tied with the convex sides together, impart a wiggling action that is missing in many of the bucktail lures offered for sale. It is for this reason that I prefer a combination bucktail and streamer lure. Lures with collars of hackle tied back of the head add considerable action.

The streamer flies illustrated in figures 7, 8, and 9, are proven patterns tied similar to a large hackle or bivisible dry fly, though intended for sub-surface fishing. These lures used with a spinner were responsible for some of the best catches we were able to produce last season. This type of streamer is made up of extremely large hackle taken from the shoulder section of heavy cock birds. These hackles are soft and lend themselves admirably to this purpose. The method of fishing these flies is identical to fishing wet flies for trout when a spinner is not used. In this method of fishing the fly can be cast across the current and permitted to follow the natural flow of the water until it has reached the end of the arc invisibly inscribed with the rod tip, when it is slowly retrieved in preparation for the next cast. When the spinner is employed the fly is drawn across the current, thereby giving the spinner an opportunity to revolve. At the end of the arc, before starting the retrieve, it is well to allow the fly to settle into the pockets

for a few minutes, giving it only enough action from the rod tip to encourage the spinner to work evenly. This method will often invoke a strike when others fail.

Dry fly fishing for bass has never been considered seriously among the successful methods by the average angler, but there are times when a floating bug or large bivisible fly will cause surface explosions that will render a previously tranquil pool into a cascade of spray. For weeks last summer the bass in the Susquehanna river fed upon the dragon flies that ventured too close to the water along the grassy shorelines.

Deer hair as well as hackle floaters account for the capture of a great many bass each season and a large variety of patterns are available at all well stocked sporting goods stores. Your tackle dealer should be glad to show you patterns that he knows will consistently take bass, because once you gain confidence in a certain lure your tackle salesman is assured repeat sales. Ask his advice on the newer patterns and pay strict attention to the brown, gray, and black patterns, with touches of green, red, and yellow, but the subdued colors usually predominate in the lures of real importance. Figure 10, 11, and 12, illustrate three types of floating lures of proven merit.

The twelve lures illustrated should make a very good selection to be carried at all times with the long and short rods so that the angler can change from either method at a moment's notice.

A description of the lures as shown may help in the selection of a set that will give the novice an opportunity to start out on the right foot.

## No. 1. The Midge Oreno

This lure in a red head and white body or other color combinations can be secured in several different sizes and due to its small size, the  $\frac{3}{8}$  ounce Midge has become very popular, as are the smaller size lures in other patterns.

## No. 2. The River Runt

This transparent lure comes in a variety of colors and is now made in a small size to which we are very partial. The perch scale finish seems to attract attention more than some of the other finishes.

## No. 3. The Devon Spinner

In a previous issue of THE ANGLER, I gave a description of how to make this successful lure and I was elated with the response I had from many anglers who are making their own. This spinning type of imitation minnow is imported from England and as far as our knowledge is concerned, there are none manufactured in this country. Being very successful, we are surprised that some American manufacturer has not taken it more seriously. They are made in silver and gold patterns and each seem to work well.



No. 4. The Gold Digger

This streamer fly was originally tied for rainbow trout but in a larger size took a great many bass last season so it was dubbed the Gold Digger. Daintily dressed, it is not reminiscent of feminine pulchritude, but a deceptive siren always. The body is of white chenille with a yellow and a red hackle feather, tied convex sides together, serving as a tail. Red silk is tied spirally one-third way along the body and white bucktail hair forms the back. Jungle cock feather cheeks are added and a collar formed by tying a red and a yellow hackle on at the head.

No. 5. The Yellow Tiger

A very good pattern in cloudy water, the yellow tiger is dressed as follows: Tail, gray mallard; Body, yellow chenille; Wing, yellow bucktail and jungle cock cheeks. A red feather is tied on at the throat.

No. 6. Royal Coachman Streamer

This pattern is tied exactly like the regular royal coachman pattern except that the white streamer hackles have between them a pair of brown hackle feathers. These brown feathers seem to make this lure much more effective.

No. 7. Juniata Special

A combination of colors that has proven to be a number one lure for small mouth bass in the Juniata River. The tail feathers of this lure are badger hackles dyed a pale yellow; the body is constructed of three hackles, a ginger, a brown, and a black tied on in the order mentioned. This pattern was originated by the writer and Johnnie Hoffman, one of Lykens most successful bass fishermen and has made repeated heavy catches with it and uses it almost exclusive of all other patterns.

No. 8. Punk's Pet

This streamer fly has a pair of badger hackles for a tail and the entire body is constructed of large badger hackle. This fly was affectionately named after a friend who made history with it.

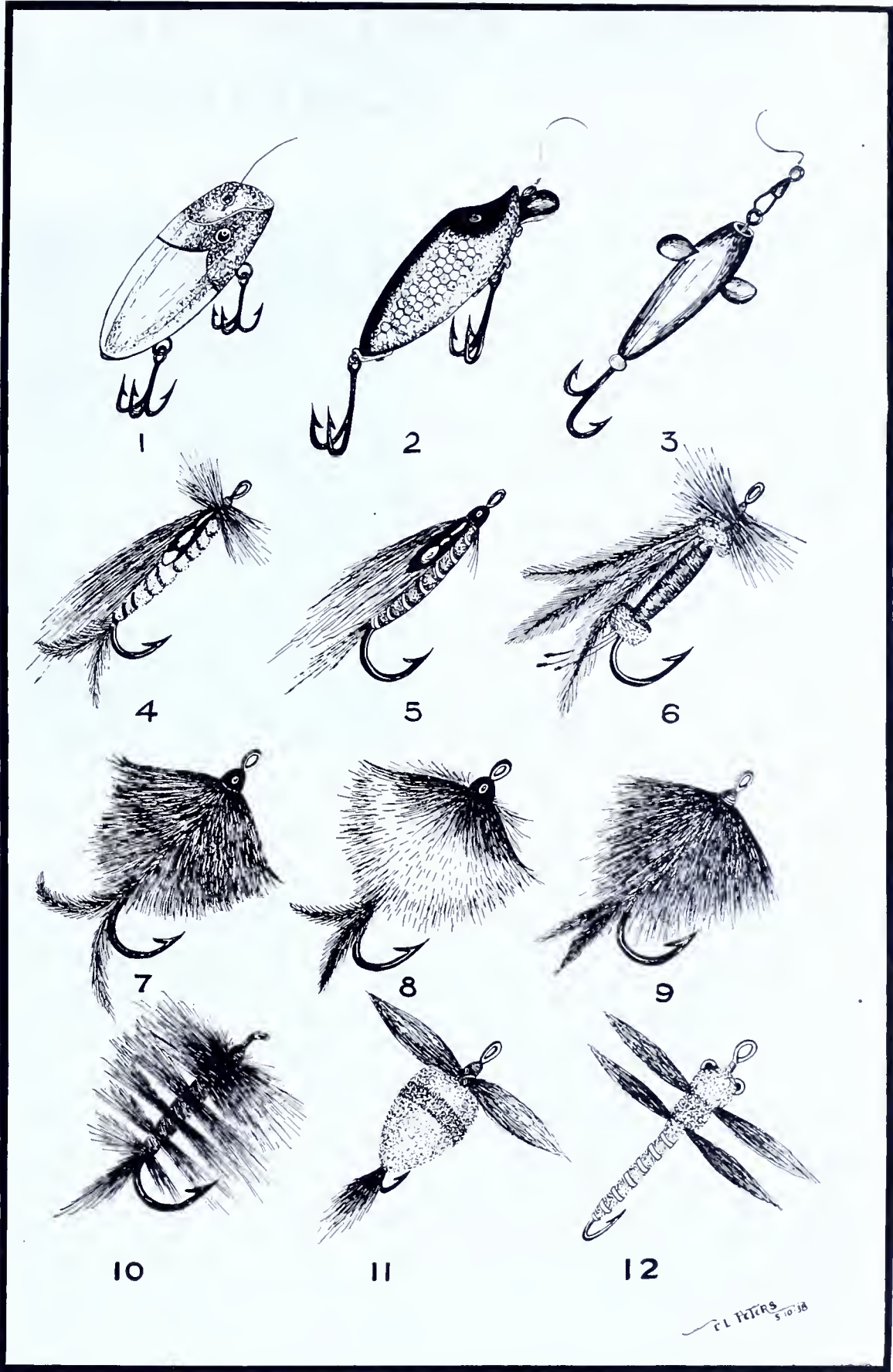
No. 9. Blackbird

The Blackbird is an old pattern that is used with exceptional success on the lower reaches of Penn's Creek. The tail feathers are a pair of black hackles, and the body is dyed black hackle tied on in palmer fashion.

No. 10. Bi-visible

Bi-visible patterns tied on number four and six hooks in a variety of patterns prove effective.

The following are good patterns to carry: Yellow body and gray hackle; Red body and gray hackle; Red body and brown hackle; Black body with brown hackle; and Green body with gray hackle. All of the above patterns should have a gold tinsel stripe on the body and the hackle tied sparsely along the body and quite heavy near the head.



No. 11-12. Bass-bugs

The bodies of these floaters are tied of deer hair and trimmed to form. A variety of shapes and sizes can be produced with deer hair and bucktail hair for wings can be dyed any color desired.

The flies illustrated are two of the more prominent patterns and are easily constructed by the average angler who likes to tie his own.

With the above assortment to choose from, it should not be necessary to use live bait of any kind in order to catch bass.

The slogan of the Fish Commission, "If you would catch more fish, kill less," should be

amended to read, "If you would raise more fish, save the baitfish."

We read a great deal in the papers and magazines about conservation. I am afraid that we have been practicing a great deal of restoration and are not giving enough thought to conserving for the future what we already have.

Restoration certainly is necessary, but let us learn to conserve and thereby assure a future supply of baitfish and fish bait.

It is much more fun to completely outwit a fish with an artificial lure than to drag around a jar of minnows, helgramites, or what not, and "horse" the fish you do catch into submission at the end of a mason twine and a Cello string leader.



# "FRIEND ANGLER--ARE YOU MISSING SOMETHING?"

By HARRIS G. BRETH

THE response to my June article "Amateurs Took These Lunkers" amazed me. Every one of the hundreds of letters I received was from a sportsman—and a fisherman—and it made no difference whether he was a lifelong live bait fisherman, an ardent "purist" for strictly artificials, an amateur plug caster or a rank beginner . . . each letter reflected the desire in a real angler's heart to "do something" to help the bass forage condition in many, many of our streams and the personal willingness to cooperate to the ninth degree.

To know that is a pleasure and an inspiration. Before the publication of the June article I was under the impression that the lack of fish food and food fish for the bass had been overlooked by the vast majority of fishermen. But as far as readers of the ANGLER are concerned, I was wrong. Decidedly wrong. And I extend my humble apologies.

It is now my conviction that anglers everywhere realize that the most serious depletion of bass forage in our streams is caused by the great increase in recent years of the thousands of fishermen who annually take a tremendous toll of crabs, helgramites, stone catfish and various species of minnows, to use as live bait, and that over the years in dozens of places this has finally brought about the condition wherein the remaining supply is not sufficient for adequate reproduction to maintain the bass population in an ideal state.

In reading these letters from all over the state from all kinds of fishermen I discovered some interesting things which I believe will be of interest to all anglers.

First—that any fisherman, no matter his age, color or creed, much prefers to take one or two game fish of "lunker" proportions during a day's sport rather than a limit catch of average small ones.

Second—that the percentage of "lunkers" actually creeded is overwhelmingly in favor of the artificial lure users. It is the plug, the fly and spinner user who seems to have most of the fun, the supreme thrills, the consistent luck in hooking into the "big 'uns."

Third—that what makes fishin' "fishin'" to most anglers is the constant eagerness and hopeful attitude that the very next cast will induce a savage strike from an old sockdollager. This holds true for both the live bait and artificial users.

Fourth—that fishermen continue to stick to live bait principally because they are not familiar with the use of artificials, or, even more prevalent, they have never consistently given them an equal test or an adequate trial.

Fifth—and a compliment to his sportsmanship—that the average, thinking live bait angler is willing to do his part in relieving the enormous drain on game fish forage by turning to other lures.

I know every reader of the ANGLER would like the pleasure I experienced in reading the letters I received which led me to the above conclusions. I also believe you would like to know what other anglers are thinking and talking about. So, as far as the space allotted



Plugging scored this fine catch of Allegheny River smallmouth bass for E. P. Updegraff early this season. The two largest bass weighed 4 and 4 1/4 pounds respectively.

to this article will permit, actual extracts from some of them will follow, and it is my opinion that you will reach the same conclusion I did.

But before quoting from these letters, I would like to say a little something about big fish, or rather, "lunkers" as I like to call them.

Personally, although it may be the sadistic side of me, I take a grim pleasure in "killing" a lunker. Every time I tie into and land a specimen eighteen inches or more, and remember what I have found in the gullets of others of his breed, "tunk" on the head and he will do no more of his cannibalistic preying on his smaller brethren.

The angler who can take these huge fish and take them consistently deserves a conservation award. He not only removes a menace to smaller legal fish, but is providing extra forage for them to grow to desirable size and weight. It is truly amazing the amount of fish and forage one big lunker will consume in a year's time.

There's a point to all this. Here's it. These "killer" fish can best be taken on artificial lures. Artificials are usually designed to arouse their "killer" instincts, and are easier to cast and easier to handle. They also will stand up under hard fishing day in and day out. And once a particular lure is discovered which they "go for," the angler will have all his dreams come true . . . in surging strikes . . . in mighty battles . . . in well-earned trophies.

This article is the only opportunity I will have to thank all of you for the letters I received. I would really enjoy answering every one personally, but due to the great number of them, it is practically impossible. But it seems to me we all owe the ANGLER a rousing

vote of appreciation for providing the fine medium, the common meeting ground, the open forum as it were, in which this exchange and interchange of ideas and information, interesting to all of us and extremely important for the betterment of all angling, can reach the far corners of the state.

Now for the quotations reflecting the sentiments of fishermen everywhere. As I stated previously, it would be a grand thing to print them all, but these represent a good cross section covering the opinions of the entire group and include the most pertinent. Here goes:—

J. R. \* PITTSBURGH—I am glad to say I fully agree with you on the superiority of the artificial lure over live bait. My experience, though rather limited, has been the same as yours with but few exceptions. I would rather catch one nice bass on a plug than a dozen on bait. I have fished for bass in Ontario in the famous West Arm of Lake Nipissing. All the natives and guides up there claimed that plugs were O. K. for Great Northern Pike and Muskies, but that bass would take only dewworms or crawfish. However, I caught some dandy smallmouths on different plugs. I also fished for bass in Pine Lake, Ohio, and Edinboro Lake, Pennsylvania, and last winter had some excellent fishing down in Florida in the St. John's River. The bass down there average about five pounds and a nine or ten pounder is common. The plug that is in most use down there answers the description of the "killer" plug you mention in your article, a frog finished injured minnow.

J. F. G. \* BRANCHTON—I started out a few years ago to fish for bass with live bait. Now I am trying to learn everything I can about the use of artificial lures as I think the same as you, that it is the most enjoyable and also the most sportsmanlike way of taking these grand fish.

J. Y. \* SHENANDOAH—I only began fishing last year and always used live bait, but after reading the PENNSYLVANIA ANGLER I am going to take a crack at fishing for bass and pickerel with the plug you wrote so much about in your article.

G. W. B. \* QUAKERTOWN—I, for one, am going to use more artificial lures this coming season for the simple reason that during the past three years I have used "live bait" and my success has been poor. You mentioned "Pep's Landing" on Lake Wallenpaupack. Strangely enough, that is where I hang my "Sunday suit" over many week-ends. And the small island where you were so fortunate in making your catch ("my first bass, a four pounder, on a plug") is where we fish for bass and wall-eyes but with live bait. Our catches were usually small and only once in a while did we hook one that was legal size. For this reason and for your sensible appeal to us "live bait" fishermen, I am turning to artificials this year.

R. L. M. \* SUNBURY—I do a lot of bass fishing every summer and as yet I haven't



caught anything worth mentioning. I'm getting tired of fishing with live bait and worms and I'm very anxious to try plugs.

R. M. S. \* McKEESPORT—I've been fishing every since I was a small boy. Several years ago I decided to go "artificial" entirely. So far, my fly fishing has been fairly productive but plugs are just so many pretty pieces of wood which the fish won't look at. Every plug I have had has been recommended to me by men who have taken fish with them. So far, no fish. If you can tell me of a successful plug and how to use it, I'm for it. I don't like bait fishing for several reasons which are obvious. Also put me down as being with the Fish Commission the whole way.

A. H. B. \* NORTH WALES—Have used live bait mostly but have tried plugs at times without much success but feel that it can be done, so I want to try it again this coming season.

J. E. S. \* BEAVER FALLS—I have been looking for the thing you have found—a plug which will take a few good bass but not hook a lot of small ones.

J. F. K. \* READING—I have been fishing for quite a few years and the largest bass I ever caught was a smallmouth, 18½ inches, at a private lake near Greentown, Pike County, last summer on live bait. I have caught very few on artificial bait although I have spent a lot of money for flies, spinners and plugs but never seem to buy the right kind. I have also had a lot of trouble in getting live bait, and at times it has also cost me plenty.

C. L. M. \* PAXTANG—I've been a "live bait" fisherman for many years, but after reading your article I'm determined to go through this season trying plugs, flies and spinners. My guess is that your story has convinced many more than me.

H. G. B. \* PITTSBURGH—I read quite a few stories about the bass forage on the big river (The Allegheny). You know, it may be scarce in places but where I fish I find it abundantly. Three of us—rigged up our gasoline light and in two hours we had 103 prime soft shells (crabs). Now that's cheap and easy—but it's hard on natural forage. Understand we have plugged and may be converted. (Note: Incidentally, the Allegheny River again this year is furnishing splendid bass fishing. Score again for a good food supply).

O. L. B. \* NEW KENSINGTON—Personally I would like to see the use of live bait for bass cut out entirely. Too many small fish die from being injured internally when caught on live bait, but on flies and plugs a bass is seldom hurt.

J. B. \* SELTZER—Your article concerning the future supply of food for our fish in local streams and ponds has me deep in thought. I have been a live bait fisherman for the past several years, having a fairly successful creel. I am anxious to switch over to artificial lures.

E. A. J. \* NEW KENSINGTON—I am inclined to agree with your views and intend to try my luck with artificials. Believe me, I would be a happy fisherman if I was a successful plugger.

J. R. S. \* HUMMELSTOWN—I do not favor live bait, it takes too long to get it and is too hard to keep.

W. T. P. \* NEW WILMINGTON—If you are as "slap happy" about bass fishing as I am it might interest you to know that I have found two flies that seem "killers" on Allegheny River bass. They are tied as follows: No. 1/0 Sneek or Kirby Hook, Grey Maribou feather top and bottom with short Red Maribou tied in at bend of hook for a tail. The other: Yellow Maribou feather top and bottom with Red Maribou tied in at center. These two flies work equally well with single or double spinner. Last year I started at Corydon, near the New York State line and floated down the Allegheny to Hunter Station below Tionesta. During the course of the trip I hooked 97 bass, but didn't keep any until the day I was to be picked up and taken home. Incidentally, the Grey-Red Maribou to which I referred took two nice muskies on the trip down river. (Score 97 for artificials!)

J. L. \* GLEN LYON—I have tried different plugs and can cast fairly well but never had much luck and always went back to live bait which, you know as well as I do, is a back-breaking job getting the bait. Sometimes they die before you can use them. I would also like to be a fish warden at times for just one reason, and that is to stop some of the lousy sportsmen ripping the hooks out of undersized fish and then throwing them back to die.

A. R. M. \* ERIE—I have had considerable  
(Turn to Page 27)



Good plug water. Holtwood Dam on the lower Susquehanna River.



# FISHING FOR PANFISH

By CHAS. M. WETZEL

**P**ROBABLY the greatest number of fish caught on our streams and lakes are the pan fish (small fish, fried whole, of frying pan size) such as the yellow perch, rock bass, fall fish, catfish, chubs and sunfish. The crappie, too, falls under the same category, but I have not included it as this fish appears to be rarely found in our Pennsylvania waters.

It is quite difficult to show others how to catch panfish, especially when we all believe we have been graduated from the panfish school, and knowing my limitations, I will attempt it only in a general way.

In fishing for panfish two methods are commonly employed. 1. The "Old Timers" generally used the long cane pole, with float, sinker and hooks attached to the line as shown in Figure 11. This rig baited with angleworms has always been popular with young and old alike. 2. The modern angler scorns the use of such heavy equipment and uses instead the light fly rod, generally equipped with three wet flies as illustrated in Figure 1. This is the identical rig of the wet fly trout fisherman, so popular on all streams. A light six-foot leader with point and two dropper loops is required for attaching the three wet flies. This convention is illustrated in Figs. 2 and 3, while Fig. 4 shows the method commonly employed in fastening the line to the leader.

Aside from the bullhead, all of the panfish rise well to the fly—the gentlemanly way of catching fish. For those of you with fly casting aspirations, no more suitable place for obtaining experience can be found than on our warm water streams, fishing for the panfish. There, as often as not, you will find some expert fly caster indulging in his favorite sport; and at a small expense securing almost the same enjoyment as if he were far away on some turbulent mountain stream. Probably this same angler has been off his strike, (failure to hook the fish) and is seeking to recover that synchronous coordination of eye and movement so essential to the successful fly fisher. Make no mistake about it, panfish rise well to the fly and furnish excellent sport on the light rod.

## Yellow Perch and White Perch

One of the most outstanding characteristics of the perch is that they gather together in schools; and when one is caught others usually follow, that is if the school can be kept in the immediate vicinity.

A number of years ago my father and I were fishing Lake Wallenpaupack for wall-eyes. Having fished for a few days gaining plenty of experience and no fish, it was high time that the skillet should take on the fishy odor usually associated with camping out. On previous trips we had more or less established a precedent that the wife expected us to live up to.

Nearly half way across the lake, we noticed a school of yellow perch breaking water all around, feeding on midge flies which the wind had collected in large patches.

"If only we had some trout flies along, we'd have a mess in a short time," I said, watching the perch splashing around.

"We don't have any," said Dad. "Let's see if we can't catch some on night crawlers."

"I'll keep them around, while you fish," I offered, dropping the anchor overboard.

Attaching a tandem spinner to my line, (similar to that illustrated in Fig 8) I dropped it into the water; and by constantly raising and lowering it, the fish were kept in a continual state of excitement. In a short time they moved away, no longer fascinated by the glittering blades, but not until after we had caught our mess of fish.

We are particularly fortunate here in Pennsylvania in not finding worms in our perch. On various northern lakes, these pests bury themselves in the flesh of the fish and can easily be located by the small brown spots in the white meat after the fish has been gutted.

Worms and minnows are probably the best perch baits, but when the fish are surface feeding, trout flies prove superior to anything. The flies should be cast out over the water, allowed to sink a moment, then retrieved with a slight twitching motion. I have had the best success with the red ant, professor and a small governor.

White perch are found in the Neshaminy Creek, Montgomery county, and some excellent sport can be had fly fishing for them during late May and early June. At dusk the school starts working upstream for probably two hundred yards, causing a great commotion on the surface of the water; and if one keeps abreast on this foraging trip, a double now and then on the red ant will not prove unusual.

## Chubs and Fall Fish

Chubs rise well to the fly and are usually found in the swift riffles or immediately below, where the current slows down over the deeper pools. Worms, crickets, and grasshoppers are among the best of baits, but probably the greatest number of chubs are caught on flies during trout season. Like the sucker in late summer, their flesh grows very soft, but they are among the best of fish for tasty eating. Scale, remove head and entrals; fry crisp and brown, eating bones and all.

Fallfish, commonly called whitefish, are found in the majority of our larger streams and are without doubt one of our prettiest fishes. On the North Branch of the Susquehanna below Wyalusing, I have had excellent results using a tandem spinner and small Paramachene Belle fly similar to Fig. 8. They also take a dry fly, especially those like the Coachman, Bee, Rube Wood or others which are tied with thick plump bodies. Some of the fallfish attain a large size and put up a real scrap on a light fly rod. I have never found them so plentiful and undoubtedly the great majority are caught while fishing for other fish, like the trout in early spring.

## Bullhead Catfish

When fishing for bullheads or catfish, it is essential that the bait reach the bottom of the stream bed for these fish are bottom feeders; and to achieve this effect a small sinker is usually employed. The most commonly used bait is the angleworm, but minnows and pieces of sparrow work equally as well. Bullhead fishing is at its best during a flood when the water is high and discolored.

Catfish could be taken during the day in

clear water. This was accomplished by wading in the stream and stirring up the mud and silt among the lily pads. It is only necessary to wait a few minutes for the catfish to come out of the mud and start feeding, as they evidently think that food is being washed down from a recent storm. I have made several outstanding catches of catfish in this manner, especially during long dry periods when they feed avidly.

Bullheads are more or less nocturnal in habit and in lakes where the water is normally clear, fishing is usually done at night. There are exceptions, of course, to the above, for at one time while fishing for muskies in Little Mud Lake, Ontario, I caught a large channel catfish during the day on a No. 6 Lowe Star Spoon, probably one of few instances of its kind; but be as it may, if you want to catch catfish, fish for them at night or during a time when the water is muddy.

## Rock Bass

This small fish is a vicious fighter and will strike savagely on plugs longer than itself. They are lovers of rocks but gather in schools around any convenient shelter, like submerged logs, overhanging stumps and the like. The small flyrod plug is very good especially the white one having a red head, illustrated in Fig. 9. Worms, wet flies, grasshoppers, crickets, minnows, fly and spinner combinations are all good but the most successful lures are those that kick up a commotion as they are being drawn through the water. I have caught quite a few rock bass on the small feather minnow illustrated in Fig. 7; and the small cork bodied bug, Fig. 10, works fine when the fish are surface feeding.

## Sunfish

Everyone knows the sunfish but comparatively few know how consistently to take him on the fly rod with artificial flies. The secret is that they have not been using the correct pattern, for like the trout, the sunfish is very selective. It is probably due to this discriminating trait that the sport has not proved more popular, for many anglers after a few unsuccessful attempts, grow discouraged and form the opinion that catching "sunnies" on trout flies is the "bunk."

First it is necessary to locate the fish, probably the greatest secret of all in successful angling. Look for them around overhanging stumps, submerged logs, large rocks, lily pads and pockets in the long waving ruffled pond weed. Another favorite lurking place is just at the edge of a bed of the water weed *Philotria*, commonly found on Middle Creek and the majority of our warm water streams.

Having located the fish which assemble more or less in groups, start casting, changing flies frequently until the correct one is secured—then remember the pattern for future use.

Wet flies are without doubt superior to all others and the shallower the water, the more effective the fly. One of the most dependable patterns is the orange or carrot colored nymph, reputed annihilator of brown and brook trout. With it, I have never caught a trout, but many a sunfish has succumbed to its devastating charms.





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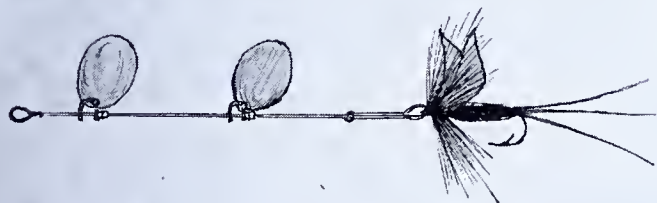
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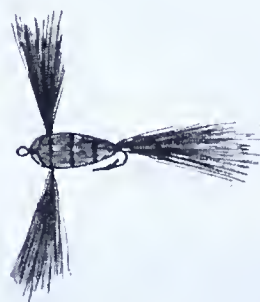
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# YOUR FLY FISHING EQUIPMENT

## Historical Facts in the Development of the Flyrod and Accessories

By ALEX P. SWEIGART

**E**MBLEMATIC of the fine sport of fly-fishing, the slender, lightly-balanced split bamboo fly rod is a cherished possession of the modern angler. There is something almost alive in this wand-like creation that has added such immeasurable charm to the fishing art. Fragile in appearance, frequently only from four to five ounces in weight, it is, in the hands of a skillful fly fisherman, a marvelous device.

Just as in many forms of the angling past-time, the origin of this popular fishing device will probably always be a fertile field for argument. There are those who will contend that it is an American invention, but our earliest records show it to have been made first in England.

First of American split bamboos, is the claim, was that made in 1848 by Mr. Philippi, a gunmaker in Easton. This rod was made of split bamboo glued together in three sections. It has been argued, however, that Mr. Philippi never made a complete rod of split bamboo, instead only a joint and tip to a three piece rod, the butt being of ash, joint and tip in three sections.

To E. A. Green of Newark, N. J., is generally conceded the honor of having made the first complete split bamboo rod in America. It is claimed that, in 1860, Mr. Green glued up several of these rods for the trade. Of interest to many Pennsylvania fishermen is the fact that Thaddeus Norris of Philadelphia, whose angling knowledge was widely heralded at the time and who was one of the foremost figures in introduction of the black bass to Pennsylvania waters, was mentioned in connection with this invention but he never claimed the honor. The rods manufactured by Green were in four sections. In 1863 or 1864, Mr. Murphy of Newark also turned out 4-piece bamboo rods for the market, while the first rods constructed in six sections were placed on the market by H. L. Leonard of Bangor, Me., in about 1870. Soon after this, 6-piece rods

were made by Dr. A. H. Fowler. Mr. Murphy was also said to have claimed credit for the first 6-piece rod.

Now, turning back again to the origin of the split bamboo let us consider the remarks of Lawrence Alexander, who commented on the history of the fly rod in the '80's. He based his deductions concerning its origin on the first edition of the *Handbook of Angling* by Ephemer (Edward Fitzgibbon) published in London in 1847. The following account appearing in that publication and written by a "Mr. Little of 15 Fetter Lane, rod-maker to His Royal Highness, Prince Albert" concerns the making of top and middle joints of a salmon rod.

"They are to be made from the stoutest piece of bamboo cane, called 'jungle' and brought from India. The pieces should be large and straight, so that you can rend them well through knots and all. Each joint should consist of three rent pieces, split like the foot of a portable garden chair, and afterward glued together, knot opposite to knot, or imperfect grain opposite to imperfect grain, but the best part opposite to that which may be knotty or imperfect, so as to equalize defectiveness and goodness. The natural badness of the cane you counteract by art, and none save a clever workman can do it. The butt of a salmon rod should be made of plank ash or ground ash, though many good judges prefer willow or red deal, as being much lighter, and where lightness is required the whole rod may be made of cane. The few makers that have as yet attempted solid cane or glued-up rods have generally placed the bark or hardest part of the cane inside in gluing and then reduced the joints down on the outside to the usual tapering shape. Give me, however, the workman who glues the splices with the bark outside and then gives his rod a true and correct action, allowing the three different barks to be seen visibly on the outside after he has rounded the whole.



Trout waters big or small, are ideal for use of the split bamboo. Here's J. L. Ridinger of Jeannette in action on a Westmoreland county trout stream.

"If the pieces are skillfully glued together they will require no reducing, except at the corners, to bring the rod from the three-square to the round shape. I am prepared to prove that there are not more than three men in London capable of making, perfectly, rods of solid cane, rent glued and then correctly finished with the bark lying on the outside."

Quoting again from the *Hand-book of Angling*:

"In my opinion, rods made entirely of lancewood are the worst; and those made entirely of rent and glued jungle cane are the best. They must be most carefully fashioned, and no maker can turn them out without charging a high price. I am also of the opinion that they will last longer than any other sort of rod, and are far less liable to warping. I have a high opinion of their elasticity, and Mr. Bowness, fishing-tackle maker of No. 12 Bell-yard, Temple Bar, showed me once a trout fly-rod, made in this, my favorite way, that had been for many years in use and was still straight as a wand. I never saw a better singlehanded rod."

Apparently, about this time, there was a turning away from rods made entirely of rent cane or other rent material and the trend was to rods composed in part of this substance. Wrote William Mitchell, an American authority on the fly-rod in the '80's:

"The first record I have been able to find of the construction of the split bamboo rod is in Ephemer's (Edward Fitzgibbon) *Hand-book of Angling*, second edition, page 255, London, 1848, where he recommends a tip for a salmon rod to be made of bamboo cane rent longitudinally into three wedge-shaped pieces, then glued together and reduced to the proper tapering thickness, ringed and whipped with unusual care and neatness: 'I have changed my opinion with respect to rods made entirely





of rent cane or any other wood rent. Their defects will always more than counter-balance their merits."

Mitchell continued:

"I now quote from Blacker's *Fly Making and Angling*, London, 1855, page 82:

"The rent and glued-up bamboo cane rods, which I turn out to the greatest perfection, are very valuable, as they are very light and powerful, and throw the line with great facility."

"The first edition of this book, published in 1842, I have also not been able to consult. The author was a practical rod-maker, and made the split bamboo rod I refer to in the beginning of this article. (Note: The rod mentioned was made to order for James Stevens, a veteran angler of Hoboken, N. J., in 1852, according to Mitchell).

"In 1856 there was published in London an edition of Walton's *Complete Angler*, edited by Edward Jesse, with notes and papers on fishing tackle by the publisher, Henry G. Bohn. On page 325, in the article on rods, he says: 'The split or glued-up rod is difficult to make well, and very expensive. It is made of three pieces of split cane, which some say should have the bark inside, some outside, nicely rounded.'

"In January, 1857, the third edition of *The Practical Angler* by W. C. Stewart, was published in Edinburg. On page 33, Mr. Stewart, in speaking of rods, says:

"The strength of bamboo lies in the skin, and in order to turn this to the best account, rod makers lay two or three strips together so as to form a complete skin all around. Rods are sometimes made entirely of bamboo, but they possess no advantage over those in common use to compensate for the additional expense, a twelve-foot rod of this material costing 3 pounds to 4 pounds."

"At that time, bamboo rods were all made in three sections, with the enamel on the outside. I know that Mr. Wilkinson says the rods made by Alfred and Sons were put together with the enamel on the inside; but I think this must be a mistake, unless he means that the enamel was on one side of the longitudinal section of the triangle, and when glued is from center to circumference. But put the outside of the bamboo on the side of the triangle or apex, then the enamel is all gone, no matter in what number of sections the rod be made.

"Calcutta bamboo—which is the bamboo for making rods, is one of the most useful and important of the grass family, and consists of a culm or cylinder (except at the nodes or joints, which are about ten to fifteen inches apart) and a solid at the nodes, with a projection on the outside of one-fiftieth to one-thirtieth of an inch all around, except at the axil, where the branches grow on alternate sides. This projection has to be taken off in making the rod; then going through the thickness of the enamel from five to eight times, for the space of from one to two inches on each node, of which there are three in each of the six sections (which is the best number of sections from which a split bamboo rod can be made). These nodes being the weakest spot in the bamboo, in gluing up the sections they are never put on a line with one another, but one is moved up, say, two inches; the next down two inches, so as to make six less weak spots in the circumference of the joint and eighteen in each joint."



Live trout and fly casting contests today serve to enhance the popularity of the light bamboo rod and its accessories. Here is a scene at a live trout contest staged in Lehigh county.

From the foregoing discussion of the split bamboo, the amazing evolution which has taken place in development of the modern fly rod is evident. No longer is the bamboo fly rod a luxury, but instead, a reliable rod for fishing of this type today is well within the reach of the average fisherman's pocketbook.

#### Reel, Fly and Leader

Necessary in every modern fly-fisherman's equipment are the dainty artificial fly, dry or wet, a light weight, single action (or automatic) reel and a leader of silk-worm gut. They are linked automatically in the mind of a fisherman with the split bamboo fly-rod. Of these three accessories to fly-fishing equipment, the artificial fly has the most interesting history. First known reference to it occurs in a work by Martial, 43-104 A. D. This poet of ancient times wrote:

"Who has not seen the scarus rise,  
Decoy'd and caught by fraudulent flies?"



Art Neu, veteran fly caster, demonstrates the effectiveness of the split bamboo.

More detailed is the account on fly fishing which appeared in *De Natura Animialium*, a work originally written in Greek by Aelian, Latin author during the early part of the third century. It follows:

"I have heard of a Macedonian way of catching fish, and it is this: Between Beroica and Thessalonica runs a river called the Astracus, and in it there are fish with spotted (or speckled) skins; what the natives of the country call them you had better ask the Macedonians. These fish feed on a fly which is peculiar to the country, and which hovers over the river. It is not like flies found elsewhere, nor does it resemble a wasp in appearance, nor in shape would one justly describe it as a midge or a bee; it imitates the color of the wasp, and it hums like a bee. The natives call it Hippouros. As these flies seek their food over the water, they do not escape the observation of the fish swimming below. When, then, a fish observes a fly hovering above, it swims quickly up, fearing to agitate the river, lest it should scare away its prey; then coming up by its shadow, it opens its jaws and gulps down the fly, like a wolf carrying off a sheep from the flock or an eagle a goose from the farm-yard. Having done this, it withdraws under the rippling water. Now, though the fishermen know of this, they do not use these flies at all for bait for the fish; for if a man's hand touch them, they lose their color, their wings decay and they become unfit for food for the fish. For this reason, they have nothing to do with them, hating them for their bad character; but they have planned a snare for the fish, and get the better of them by their fisherman's craft. They fasten red (crimson red) wool round a hook, and fit on to the wool two feathers, which grow under a cock's wattles, and which in color are like wax. Their rod is six feet long, and the line is of the same length. Then they throw their snare, and the fish, attracted and

(Turn to Page 26)



## SPORTSMEN'S COMMITTEE ISSUES STATEMENT ON SUSQUEHANNA POLLUTION

Following a bolt of pollution that destroyed thousands of fish in the West Branch of the Susquehanna River in June, a special committee of the Consolidated Sportsmen of Lycoming County, comprised of John C. Youngman, President of the Pennsylvania Federation of Sportsmen's Clubs, S. Dale Furst, Jr., and Dalton W. Bell, all of Williamsport, issued the following statement:

"The West Branch of the Susquehanna River heads in Cambria County and flows northwardly into Clearfield County. From thence it forms part of the border between Clinton and Centre Counties and joins with the Sinnemahoning Creek at Keating. There it flows eastwardly and southeastwardly to Lock Haven where it meets the Bald Eagle Creek. From thence it flows in an easterly direction through Lycoming County to Muncy where it turns south and flows to Northumberland where it joins the North Branch of the Susquehanna River, forming the main Susquehanna River.

"West of Williamsport the West Branch drains approximately 5,000 square miles of territory. Included in this 5,000 square miles is a large portion of the bituminous coal fields of Pennsylvania. These are located in Cambria, Clearfield, Centre and Clinton Counties.

"The primary development of the West Branch of the Susquehanna River occurred between 1850 and 1890 by reason of the vast timber wealth that was found in the watershed. The cutting of this timber opened up the country to its present industrial growth which consisted mainly of two factors: The mining of the soft coal regions on the head waters of the West Branch and the industrial growth of factories founded by the people whose fortunes came from the lumber industry. These two reached their culmination in the early part of the present century.

### Coal Production

"In 1927 in this area 250 active coal mines produced 7,738,927 tons of soft coal. In addition to those active mines there were hundreds of abandoned mines. This mining industry is of comparative recent origin, having been developed to such proportions within the last 40 or 50 years and along with the development of active mines large areas of coal land were laid open and worked out and abandoned.

"In the early years of the century, people living in Williamsport and west of here found their fishing fading away and were at a loss to understand the cause. The study of stream pollution was then in its infancy and people generally at that time, as many do today, looked for the first source of the dumping of foreign matter into the stream, and it appeared to them that the primary cause was industrial waste, but unfortunately the efforts of the communities to eliminate the fish killing by the elimination of industrial waste were not successful and it became apparent to the more thoughtful people interested in stream pollution that there must be some major factor involved of which they were not aware.

### Initial Study Made

"In 1932 the local sportsmen's association, having found that fishing was non-existent in

the river above Williamsport, and feeling that something could be done if the true solution were discovered, secured from the Fish Commission seven hundred fifty (\$750.00) dollars to have a thorough study of the problem made by qualified experts.

"The sportsmen's organization employed its own engineer, one Albert Ege. As a result of Mr. Ege's independent work, some very interesting factual discoveries were made.

"Shortly before the work was being done by the engineer of the sportsmen's association, a separate survey was being made by the War Department to determine, if possible, the situation in the West Branch Valley.

"In a letter to the Secretary of War, dated

Feb. 18, 1930, the Army Engineers reported as follows:

"The West Branch of the Susquehanna River is badly polluted from its source to Lock Haven, a distance of more than 100 miles. This pollution is caused chiefly by the drainage from coal mines located in the adjacent area. The stream is devoid of fish life and there is no vegetation in the stream bed. Below Lock Haven the waters of the stream although not usually acid are considerably polluted and are unfit for and are not used for municipal purposes."

"The above represents the result of the Army Engineer's findings.

"The sportsmen's investigation found the following interesting facts: It must be remembered that the water in which a fish lives corresponds to the atmosphere in which we live and the fish's ability to sustain life depends upon certain definite chemical factors composing



Stream improvement has been an outstanding feature in the conservation program of the North Central Division of the Sportsmen's Federation Arch Haines of St. Mary's (in foreground) has had a prominent role in the work.



or contained in this water. Biologists all recognize that the most important factor is the degree of acidity or alkalinity of the water.

"As the water changes from an alkaline condition to an acid condition its ability to sustain fish life steadily decreases so that when it reaches an acidity which the scientists call PH4, fish life cannot be sustained.

"This acidity in a naturally flowing stream may be caused by the discharge into the stream of almost any substance ranging from pure acid to vegetable, mineral or other organic matter which in its decomposition or oxydation has a tendency to acidulate the water.

"The engineer found that the water above Lock Haven was more acid than the water below Lock Haven and that the river at the mouths of the limestone streams like Bald Eagle Creek, which has a high alkaline content, had a tendency to be more favorable to the health of fish than the river above Lock Haven, even though there was considerable industrial discharge into this stream at that point.

### Acidity in River

"The alkalinity of the tributaries of the river the whole way from Lock Haven to Williamsport was found to be higher than that of the river itself and it was finally determined that the so-called PH content of the river reached a point where fish life could be sustained ordinarily somewhere in the 20 or 25 miles below Lock Haven.

"Various tests were made at various times and it was found that there was no definite relationship between the fish killings and various suspected discharges of industrial waste into the river, although it cannot be denied that industrial pollution was and remains a contributing factor in the situation.

"As a result of this study and taken in connection with the study of the Army Engineer, the conclusion was forced that by far the outstanding factor in the absence of fish life in the river was acid mine water.

"The mechanics of the discharge of acid mine water into the West Branch is little understood by the layman, but is well understood by the scientists and by the sanitary engineers who have made a study of it. It occurs in the following way: Water seeping into coal mines or through piles of mine waste within or outside the mines, in the presence of air, dissolves iron pyrites found in the coal seams and culm deposits and forms sulphuric acid. This acid mine drainage discharged to the natural water-courses in the vicinity of the mines, reaches the main streams of the region. It is destructive of fish and insects, and, depending on extent of acidity, is also destructive of vegetable life. The sulphuric acid thus formed combines with other elements in the water, as calcium, magnesium, and iron, and produces the corresponding sulphates.

"This statement of the method of the action of acid mine water is taken from the report of the Army Engineers to the secretary of war in 1930 as quoted above.

### Recent Pollution

"Beginning about the middle of the week of June 18, 1939, fish began to die in the West Branch at Williamsport and vicinity. This condition increased in virulence and developed the portions of a major fish killing from Williamsport to a point well beyond Montgomery. Naturally, the citizens and residents of this



Floyd Jones, classified advertising manager for "The Vindicator," Youngstown, Ohio, with a fine rainbow trout he landed first day of the season in Lackawannock Creek, Mercer county.

area were aroused. Many have placed the blame in their minds on different industries, particularly at Lock Haven.

"Others have taken the attitude that the sportsmen's associations shall not be aided or patronized until they succeed in cleaning up the Susquehanna River. Still others have taken the attitude that the Fish Commission should be boycotted by sportsmen refusing to purchase fishing licenses until the river pollution is eliminated.

"Such attitudes result solely from a failure to appreciate the cold plain facts of the case. It is true that there are sources of pollution from industries all along the Susquehanna River. These sources are not confined alone to Lock Haven, but the fact remains that the big source of pollution, namely, the bituminous coal mines, has not been eliminated.

"The sportsmen started out years ago to solve the problem. They organized and succeeded in having a mine sealing program put into operation on the West Branch. This mine sealing consisted in closing or plugging the mine holes so as to prevent the formation of the acid in under the ground.

"As far as it went it was successful. In fact, it was so successful that after 25 or 30 years of barrenness we had good fishing in the Susquehanna River at Williamsport and Montgomery. But the mine sealing job was not completed. In fact, about a year ago it was stopped altogether due to the inability of the Department of Health of the Commonwealth of Pennsylvania and the United States Public Health Service to agree upon certain things.

"The solution of the problem is to complete the mine sealing program. Every ounce of industrial pollution and including the sewage of the cities could be eliminated from this river and still we would have fish killings from the mine drainage. The cost of eliminating the mine drainage is of such stupendous figure that it must be a government project. The only way such a project can be obtained is by well organized pressure being brought to bear upon

the governmental authorities. The present organizations working for that are the sportsmen's organizations affiliated with the Pennsylvania Federation of Sportsmen's Clubs and the Fish Commission.

"These groups have to date accomplished a partial sealing of the abandoned mines and the enactment of a bill requiring in the future that all mines be sealed at the time they are abandoned.

"The sportsmen's organizations have not for one minute lost sight of the fact that there are other sources of pollution besides abandoned mines, but they also have not lost sight of the fact that we cannot have continuous good fishing in the West Branch until the mine drainage is eliminated.

"The present fish killing was caused as follows: On June 17 and 18, 1939, a severe storm occurred in the Clearfield bituminous coal area. Similar storms did not occur on the Bald Eagle, Pine Creek and Lycoming Creek water sheds. In doing this, the acid which had been collecting in the swamps, gob piles and abandoned mines was flushed into a stream already suffering from drought. No increased water came into the river from the alkaline tributaries. The result was that a wave of acid moved from river at least to a point below Montgomery. This kind of fish killing has been predicted by all members of this committee on many occasions in the past. There is nothing new involved and we are visibly and consciously reminded that we must continue our fight for real organized pressure on the legislative bodies of our government for the purpose of appropriating the large sums necessary to eliminate acid mine draining from the West Branch.

"Until such time as the abandoned mines are sealed a heavy storm in the coal bearing area without rain in the other parts of the water shed following a drought will result in a fish killing at Williamsport and below, provided there are any fish left in the river to be killed."

## MUDDY WATER HITS TIOGA BASS OPENING

Will give you a brief report in reference to the opening day of bass season in Tioga County, writes Warden Leland Cloos of Middlebury Center.

On the day before the opening we had hard rains which raised Pine Creek and caused it to become very muddy. In spite of this there were the most bass fishermen on Pine Creek for the opening day that I ever saw. The catch was very light, and there were about as many trout caught as there were bass. On Sunday the catch was also small, but on Monday and Tuesday, July 3 and 4, there were some nice catches made especially down in the gorge below Ansonia. Most all the catches were made on live bait preferably night-crawlers or stone catfish.

Streams are very low in this section and clear at present. In fact they are the lowest I ever saw them at this time of year. Only a few trout are being caught. Fishermen make reports of seeing a large number of bass in streams, and it looks like a good season is in the offing.



# HERE ARE ESSENTIALS FOR A CAMPING TRIP

By JACK RICHARDS

We offer the suggestion that fishermen buy a camping outfit and take their families along with them to enjoy their pleasures. It will be a novel experience for the wife and kiddies and you will be surprised at how much fun they get out of it.

It is the cheapest way we know of to spend a vacation and in addition you will find it the best investment you have ever made in health. In fact, you will be surprised how soon you will save in doctor bills the money you spend for your camping outfit. Your children are never too young to go camping. We can testify to this for two of ours we have had camping since they were barely a month old.

We may list as essentials for a camping trip, a tent, good, comfortable beds and a gasoline stove. If you are going to travel from place to place buy an umbrella tent with screened door and windows and a sewed-in canvas floor. It folds into a small space and can be put up in a jiffy. With the sewed-in floor and screened door and windows you can forget all about insects and mosquitoes and snakes. You can sleep just as snug in this tent as you can in your own home.

The cost of an umbrella tent is about \$20. A gasoline stove of two burner type will cost about \$4. The steel folding beds in double size which we suggested formerly cost \$14 apiece but we believe they can now be bought for \$8. An 8x8 tent will hold two of these double beds. Mattresses for them will cost about \$3 each.

Now with your tent and stove and beds you are ready for some more of the necessary equipment.

Blankets are next. Many campers use the blankets from their beds at home, but usually these are light in color and soil easily. The best blankets are army or camp blankets, preferably in a deep blue or khaki color. When you buy them insist on all-wool. One all-wool blanket is worth a half-dozen others and is much easier to carry.

Three all-wool blankets for each double bed will permit you to sleep comfortably in temperatures under 40 degrees. With another blanket you can withstand freezing weather. One never can have too many blankets, for when you get cold in the middle of the night on a camping trip because of a lack of blankets there is no getting warm and it is far from a pleasant experience.

Next are the cooking utensils and the dishes from which you eat. Chinaware has no place on a camping trip. It is best to buy a complete set of plates and cups and saucers of agateware, celluloid compound, aluminum or some similar substance. Agateware is to be preferred although it has a tendency to chip, when bumped. However, one can get several seasons out of it and its cost is so little that it is probably best. Some people dislike drinking and eating from aluminum utensils, while those of celluloid are rather brittle.

If you can do so, buy a complete set of knives and forks and spoons so that they are kept with your camping material at all times.

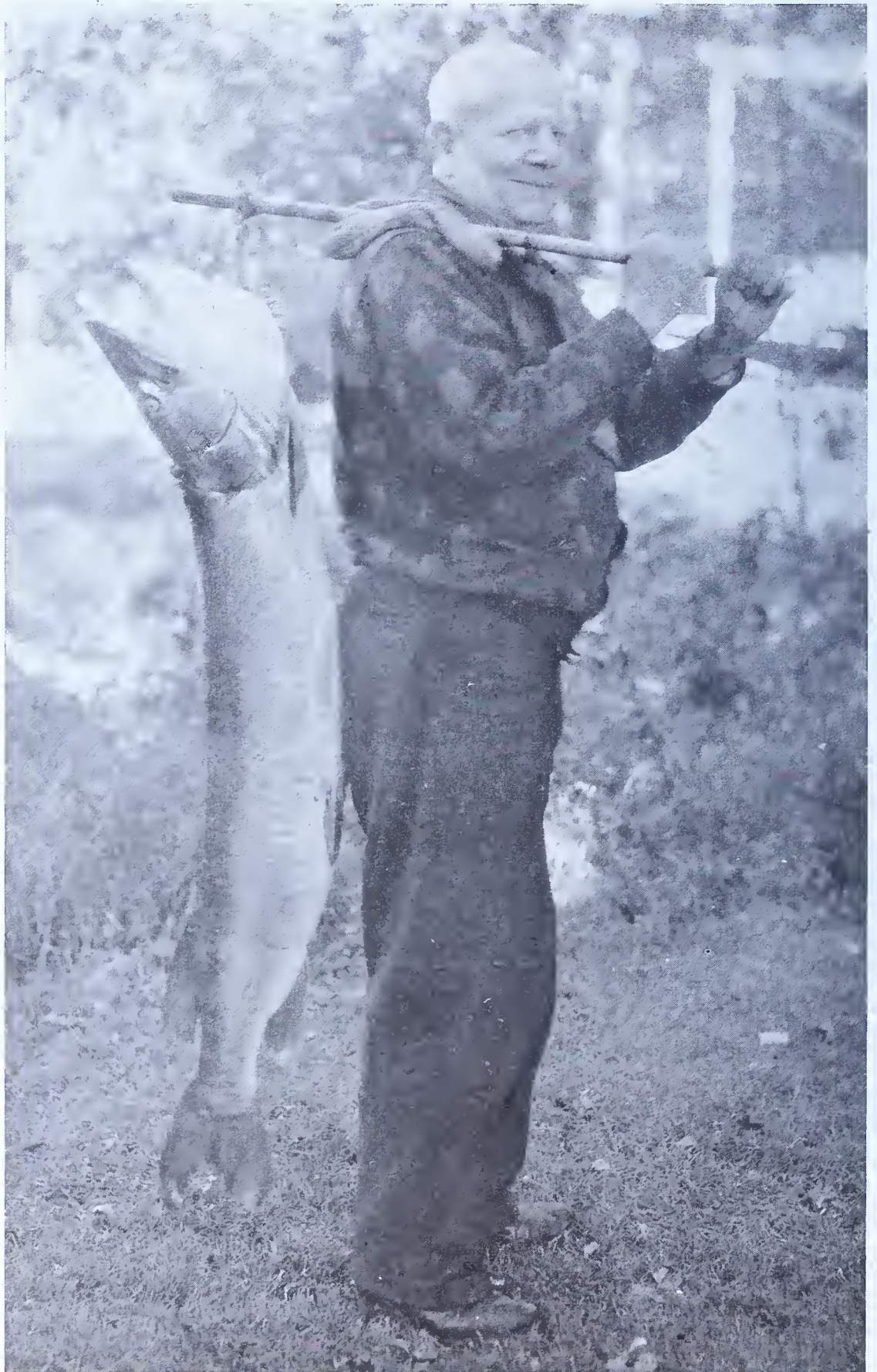
For your cooking utensils buy frying pans

with removable handles and saucepans that nest one within the other, also with removable or bail handles. Handles on cooking utensils you will find are a nuisance when it comes to packing them. There are some splendid cooking kits on the market which fold into a small space.

A useful investment is a set of cannisters in which to carry sugar, flour, etc., so that it cannot get wet, or spill. Butter must be carried in a container, for it melts on a long trip.

One of the most useful articles to carry, we have found, is a small window refrigerator to use as a cupboard when you get to your camp site. It is light and compact and insect proof and in here you can keep your food in safety when you get to your camping destination.

Next major essential to the pleasure of your trip is a piece of waterproof canvas about 12 by 16 feet or larger to be used as a fly. This is rigged over your table and here you can



Last year's record muskellunge taken in Edinboro Lake, by Fred Metz, Meadville. Length 52 inches, girth 24 inches, weight 40 pounds.



cook and eat when it rains. Carry along with you a coil of sash cord with which to erect this canvas. You will find cord has many uses about camp and always be sure to have plenty of it on hand.

Now, if you are handy you can rig up an electric light for use in the tent, drawing its current from your auto. We carry a cord about 25 feet in length to which is attached both a spotlight and a tent light. The spotlight is erected over the table in case you get hungry and want to eat at night and with the tent light one can read at night if he cares to. Both lights have separate switches. This light cord is fastened to our auto with spring clips, one to an ammeter post, battery or starter, the other grounded on the frame and thus draws its current. Recently there has appeared on the market a new type auto trouble lamp with a special bulb, somewhat like those used in your home and it is an admirable camp light.

A gasoline lamp is good at a permanent camp but when you travel about it becomes a nuisance as it will not withstand rough usage, the mantles being too brittle.

A spray gun and one of the standard advertised insect sprays is worth carrying along. If the door to your tent is left open during the day and a few mosquitoes or flies get in it is a simple matter to kill them with the spray.

Now for some more of that comfort, buy yourself a couple of those steamer chairs which most furniture stores carry and also footrests for them and you will be able to loll in the sun or shade and take life easy on your trip.

A table? You don't need to carry any. All of the state camps have plenty of tables, with benches attached, big substantial ones. Do your camping in the state parks when possible, for they are located near the good fishing, there is swimming there, firewood is furnished, there are fireplaces, toilets and running water. There are several score of them in the state and you could spend your vacation for the next five years visiting them.

The items we have listed above may seem to be numerous but all fold compactly and you can pack them without much trouble in your auto. Take out the back seat of your car and in there you can place your mattresses and blankets and provide comfort for those who ride there. The trunk of a modern auto can carry a great deal of this stuff and if necessary some of it can be strapped to a trunk rack, although it is doubtful if this will be necessary.

Several years ago we met a New Jersey school teacher and his wife at Sizerville State Camp in Cameron County, who with their four children, were en route to California. They had a small sedan and all their equipment was packed within it. There was room enough for all so that there was no discomfort.

One other thing—if you are going to be a camper, be a clean one, don't be like some of the filthy picknickers who mess up a place so that it looks like a horde of pigs had descended upon it. Keep your camp and yourself neat and clean. It takes only a few minutes to do it and it is worth it.

You should carry an axe, a flashlight, a can for gasoline for your camp stove (you must use gas without lead) a first aid kit, sewing kit, etc. A raincoat and proper footwear is essential, so is a small shovel with which to ditch your tent so that rain cannot run beneath.



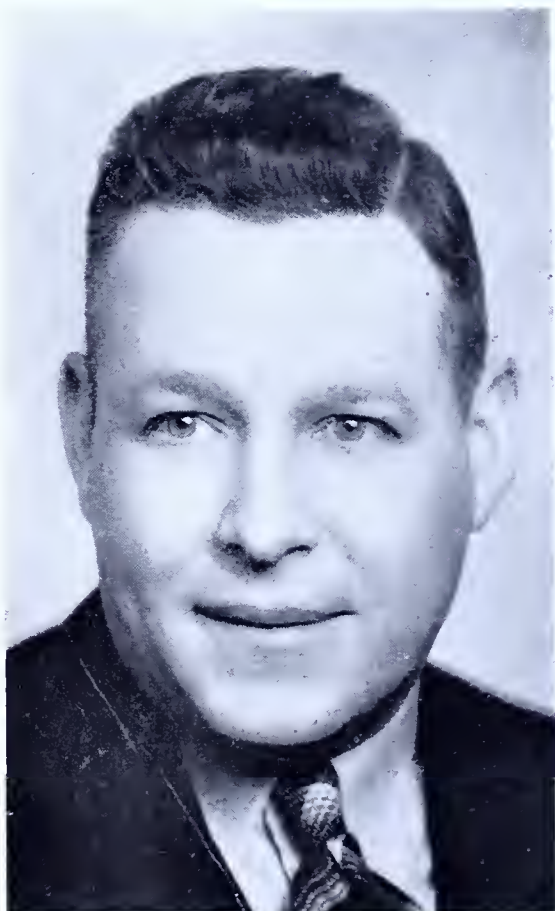
Charles Mensch, editor of the "Keystone Gazette" Bellefonte, is an ardent trout fisherman.

## SEINERS FINED

Three Mifflin County men were under sentence to pay fines of \$20 each and costs of prosecution after they pleaded guilty to charges of fishing with illegal devices.

James C. Spigelmyer, Raymond B. Loht and Charles R. Reeder were arrested by Fish Warden C. V. Long and Game Protector Ralph E. McCoy and accused of using seines for the purpose of taking game fish in Kishacoquillas Creek, West Branch, one of the county's ace trout streams.

The trio pleaded guilty before Justice of Peace Oscar F. Brush when arraigned.



First president of the Old Town Sportsmen's Association in Clearfield county, Fred Weidner of Clearfield has long been active in Sportsmen's affairs. He recently supervised the information booth at the pageant and religious services at the Elliott Park nursery according to J. F. Livingston.

## BRANCH VALLEY CLUB HOLDS PLUG EVENT

I am sending you herewith the results of a 5/8 ounce plug casting contest for accuracy which was held by Branch Valley Fish, Game and Forestry Association, on the evening of June 27, writes W. R. Betts of Perkaspie. Targets were at 40, 50 and 60 feet and the event was held on Lake Lenape, which is a project on the East Branch of the Perkiomen Creek.

We were very much pleased with the turnout which we had, and also some of the better scores.

List of the contestants, scores and prizes follows:

No.	Name	Score	Prize
1	George Texter	89	Casting Reel
2	Russ Kehs	88	Casting Rod
3	Bud George	87	Electric Lamp
4	Ernest Struble	86	Casting Line
5	Glen Haring	85	Tackle Box
6	Arthur Stoneback	82	Landing Net
7	Bill Kehs	81	Creel and Strap
8	Paul V. Hartman	81	Minnow Bucket
9	Wayne Wimmer	79	Flashlight
10	Al Harr	79	Casting Line
11	Jack Radics	77	Pen Knife
12	Gus Yeakel	75	Sun Glasses
13	Hen Moyer	75	Fish Stringer
14	Roland Hunsberger	74	Sun Glasses
15	Lester Frederick	74	Lure Box
16	R. H. Betts	74	
17	R. T. Betts	73	Minnow Can
18	C. Mumbauer	73	
19	Jake Orr	69	
20	Claude Renner	69	
21	Paul Myers	68	
22	Larry Frantz	66	
23	Ed. Renner	66	
24	T. Mumbauer	62	
25	Robert Gerhart	61	
26	George Reppa	61	
27	D. S. Frantz	55	
28	Bill Groff	54	

## SNAKE KILLING CONTEST

The Lackawanna County Federation of Sportsmen will conduct a water snake killing contest during the summer months and closing the first of September. The contest is open to all boys of the county up to the age of 17. Three prizes are being offered by the Federation, the first prize being five dollars and the second prize two dollars while the third prize is one dollar.

Inasmuch as the water snake is considered one of the worst enemies to the work of promoting good fishing and conservation it is hoped that a good many boys will compete for the prizes and also find a good many hours of sport in ridding the streams of this enemy to fish life. Only water snakes will be considered in the contest.

Each boy is requested to show at least two inches of a snake's tail to one of the members of the committee.

If further information is desired the boys are requested to contact Fish Warden Keith Harter of Dalton.





Rite after that heavy storm we hed early in bass seezun, I tuke my pole an' a gude scad o' worms an' hied me down ter the willer hole below Heck Summers place. Thet place allus did pervide rite smart cattie fishin' but this time I shure got a supprize. Hedn't much more'n throwed inter the crick an' it was gittin' rollin' muddy fast than I snagged inter a whoppin big hellbender er waterdog. Well, I ketched him an' kilt him an' afore I quit I hed tuke five more runnin' from ound 15 inches ter 27 inches long. But what got me most, Elick, known' ez how we figger thet gude bass fishin' an' gude feed fer bass goes tergether, wuz when I opened the critters. Derved ef I didn't find a scad o' crabs, er crayfish, ez you call 'em, in the stummicks o' them hellbenders. Found some chubs an' a lettle sucker, but most o' the feed they hed tuke was crabs. Now then, cum ter think erbout it, there's plenty o' reezun ter figger jest why this is.

Furst place, we all know that the crabs is out at nite er in muddy water when the hellbenders is on the move. They ain't too fast in gettin' away fer one o' them ugly critters ter nab them in a hurry, an' rite now I figger we got another checkback on why our best bass feed is gittin' so all-fired scairce. Years back, when giggin was legal, we useter kill a gude menny waterdogs. I fer one was tickled ter death then it become unlegal ter take fish with the spear an' I still figger thet out-lawin the gig an' nets wuz the best thing thet ever happened with our fishin'.

But I jest been wonderin', since seein' how plenty these hellbenders is gittin', why a giggin' party, organized under the charge o' a regular fish warden couldn't be worked ter thin down the waterdogs. I seed in the angler sumtime back whare sech a party wuz put on in the loylesock crick an' a lot o' the waterdogs wuz kilt. Seems like this cude be worked out in different places where the critters is gittin' tew plenty an' I figger it oughter dew a whale o' a lot o' gude.

The way I got it figgered, the shape most o' our cricks are in when it cums ter feed fer our bass, thet ennything ter help hold up the bass feed is all ter the gude. We got ter do sum fast figgerin' ter help the feed along an' mebbe whut I jest writ kin help. Course, the boys doin' the giggin' wude steer cleer o' the fish, but I'm a bettin' they'd git a scad or waterdogs in our cricks.



*Question: In fishing light casting lures for bass, using from six to ten feet of artificial gut as a leader, I have found it quite a nuisance this year to change from one lure to another. Have been using the lure tied directly to the end of the gut and this necessitated the bother of either clipping or untying the knot attached to the plug or cutting it, all of which takes time and is particularly annoying when the bass are on a short feeding spree. What would you suggest to overcome this?—J. L.*

*Answer: The answer seems to lie in a small snap swivel. This little gadget (we like the smallest available, size 12 swivel and size 0 snap) has a length overall of  $\frac{3}{4}$  of an inch. These swivels come in both nickel and bronze finish, but we much prefer the bronze. They are practically indispensable in fishing a spoon, the sharp edges of which will soon cut through 10 or 15 pound test artificial gut when the leader is attached directly to this type of lure. You'll find them mighty handy, too, when it comes to switching from one lure to another.*

*Question: What is a good natural bait for taking sunfish?—R.G.*

*Answer: Yellow-bodied grasshoppers, and they're becoming plentiful now, rank as mighty good natural bait in catching sunfish. While they may be fished by hooking beneath the shell immediately behind the head, some fishermen of our acquaintance prefer attaching them to the hook with a very small rubber band. By the latter method, the insect is not injured, and its swimming action after being cast on the surface makes it all the more appealing to sunnies.*

*Question: Years ago I used to fish lampreys in trolling and found them the best bait I had ever used. I live on the Juniata River and for many years now it has been impossible to get them. Do they still occur in any of our Pennsylvania bass and salmon waters?—J. D.*

*Answer: The lamprey eel, a favorite trolling lure for wall-eyed pike with old timers in Pennsylvania, no longer occurs above the dams on the lower Susquehanna River, but fishermen on the Delaware River still are able to dig them in muck beds along the shoreline of that stream. A feature that has a lot to do with their popularity is their toughness when placed on the hook. Incidentally, the largest wall-eyed pike ever reported to the ANGLER was taken on a lamprey eel by Frank Seas of Easton, a number of years ago. This fish, 34 inches in length and weighing 13 pounds 8 ounces, was caught in the Delaware River.*

*Question: Is the rock bass native to streams in central and southern Pennsylvania? If not, when was it first introduced?—R.L.*

*Answer: The rock bass, our records indicate, was not native to streams east of the Allegheny mountains in Pennsylvania. As to the exact date of its introduction, no definite records are available, but one theory advanced is to the effect that it may have been planted with the first black bass received for the Susquehanna River. The following is an excerpt from an early report of the State Commissioners of Fisheries: "How long ago or by whom the rock bass or red eye was first introduced into Pennsylvania waters is not known. But for nearly fifteen years it was confined to the Susquehanna and some of its tributaries. It is not believed to be indigenous to the waters of this State, but is rather supposed either to have been planted in the Susquehanna with some of the first black bass for that fish, or been brought into its upper waters from some of the lakes of New York where one of its natural ranges is. About the Centennial year, the State Fish Commissioners seriously considered the advisability of extending this fish to other waters of the State, but it was not until 1887 that any attempt was made to carry the experiment into operation."*

*Question: In carrying stone catfish or other live bait for long distances to fish, what is a good system to use? How about helgramites?—F.D.G.*

*Answer: First of all, if you plan to carry any live bait for a long distance in a car, don't overcrowd the bait bucket. In doing so you may either lose the whole lot or find those still alive in such a weakened condition that they are practically useless for fishing. For the average bait bucket, 18 catties should carry nicely. A good plan in hot weather is to place a good size piece of ice in the bucket as this aids considerably in holding down the water temperature and in keeping the bait in good condition. With helgramites, never place them in a bait bucket full of water. Instead, dampen some grape leaves and place the helgramites in a container permitting plenty of circulation of air. Keep them in the cellar or some other damp, cool place until you are ready to go fishing, for we have found that heat is one of the worst enemies to this fish bait. Finally, conserve every possible minnow, stone catfish, crayfish and helgramite that you possibly can, and take no more than your immediate needs. Your cooperation in this respect is vitally needed in conserving a hard-pressed food supply in our warm water streams.*



## RULES ANNOUNCED FOR PYMATUNING

The 1939 fishing season on Pymatuning Lake opened July 1 and will continue to November 30, the Board of Fish Commissioners has announced.

Rules and regulations governing fishing in the artificial lake as agreed to by Pennsylvania and Ohio commissions, are summarized in a pamphlet just released by C. A. French, Commissioner of Fisheries.

Many fishermen have waited anxiously for the announcement, keeping their gear in trim for a try at the celebrated fishing water.

Thirty of the combined species will be enforced as a daily bag limit at the lake. Two rods and lines or two lines will be allowed in possession of every fisherman, and residents of Pennsylvania can fish on any part of the lake with their regular fishing licenses.

Pennsylvania fishermen fishing from the shore on the part of the lake within the State of Ohio must have a non-resident license. The same applies to Pennsylvania, insofar as Ohio fishermen are concerned.

A summary of open season, size and number regulations at Pymatuning follows:

Bass—large and smallmouth, size—not less than eleven inches; number—eight; season—July 1 to November 30.

Bass—Rock, size—not less than six inches; number—twenty; season—July 1 to November 30.

Bass—White, size—not less than six inches; number—twenty; season—July 1 to November 30.

Bass—Crappie, size—six inches; number—25; season, July 1 to November 30.

Bluegill—size—not less than five inches; number—20; season, July 1 to November 30.

Pike perch—size—not less than 15 inches; number—eight; season, July 1 to November 30.

Sunfish—no size; number—20; season—July 1 to November 30.

Yellow Perch — no size; number — 20; season, July 1 to November 30.

Suckers—No size; number 25; season—July 1 to November 30.

Carp—no size; number—25; season—July 1 to November 30.

Pike—all species, size—not less than 22 inches; number—three; season, July 1 to November 30.

Muskellunge—Western, and Northern Pike, size—22 inches; number—three; season, July 1 to November 30.

## DISCUSS STOCKING

Stocking of fish was the main item of discussion at a meeting of the Milton Fish and Game Club in the Moose hall in June. It was reported that a large number of yellow perch have been placed in White Deer Creek and over 1000 carp and catfish in the junior fish pond.

The young anglers are making some fine catches in the junior pond and the project has been an unqualified success. The pond will be open Wednesdays and Saturdays throughout the summer.

Discussion was held on dogs running wild and chasing game and on the possibility of entertaining farmers in the Milton area at a dinner before the small game hunting season opens.



Fishing contest on Little Catawissa Creek, Schuylkill county, as it was opened to fishing after being closed 5 days when stocked during the 1939 season.



Mrs. Joseph Matalavage of Shenandoah landing a nice trout on the Little Catawissa.



## READERS' OPINIONS ON BASS FORAGE SHORTAGE EXPRESSED

Editor of the PENNSYLVANIA ANGLER,  
Board of Fish Commissioners,  
Harrisburg, Penna.

Dear Sir:

In reading the June issue of the PENNSYLVANIA ANGLER I discovered that much discussion was given to the serious bass problem concerning the shortage of good bass forage in the lakes and streams where bass are numerous. I have noticed this shortage myself in quite a number of our bass waters here in Western Pennsylvania.

As I see it the main cause of the shortage of good bass forage, such as minnows, crayfish, helgramites, and stone catfish, in Pennsylvania is caused by the over-stocking of our lakes and streams with bass. This has been proven by the fact that these stocked bass have cleaned up the normal forage produced by these lakes and streams.

If you doubt this try this: some night walk around your favorite bass lake with a flashlight directed at the shoreline and note how few are the minnows that are in the shallows seeking protection from the bass population.

I believe that the only way to solve this great problem of ours is to have the Fish Commission increase the production of bass forage and to do this the Fish Commission would be forced to increase the cost of the fishing license to gain the needed revenue.

I, for one, would be willing to pay the difference to solve our present bass problem.

All Pennsylvania fishermen, who have followed the work of the Fish Commission, know that the revenue received by the Commission is spent for the good of all Pennsylvania fishermen, and every cent is spent for better fishing.

I say again increase the cost of my fishing license to insure the future of good bass fishing in Pennsylvania.

Remember all other types of fish will also benefit by this plan.

Sincerely,  
John Kearns  
Box 65  
Gibsonia, Penna.

Mr. Alex P. Sweigart  
South Office Building  
Harrisburg, Pa.

Dear Sir:

I'd like to make a suggestion which, in some sections of the state at least, will do much to save and conserve bass food. Considerable emphasis has recently been placed by the ANGLER on this very real problem. My suggestion is this: call attention of all sportsmen and sportsmen's clubs to the enormous loss of small fish when small feeder streams dry up, as they annually do in many places. I know of literally dozens of small streams tribu-

tary to the Conodoguinet Creek which dry up about this time each year. Everytime this happens thousands, yes hundreds of thousands, of minnows and other aquatic life fall prey to ducks and birds or die from lack of water. Not only rough fish are lost in this manner, but young bass as well. I am sure that every community has groups of sportsmen who would be glad to take their minnow nets and spend a day or two catching these doomed fish and transferring them to the main streams. Of course, this would have to be done under the supervision of wardens, but it seems to me it should be part of their duty to inform sportsmen of such conditions, and to make the necessary arrangements for doing something about it. It is an even bet that more fish are lost each year by low water, or none at all, than are used by fishermen.

The ANGLER has fought many a good battle and won. I sincerely hope that it will win in the fight to restore adequate bass forage to our streams.

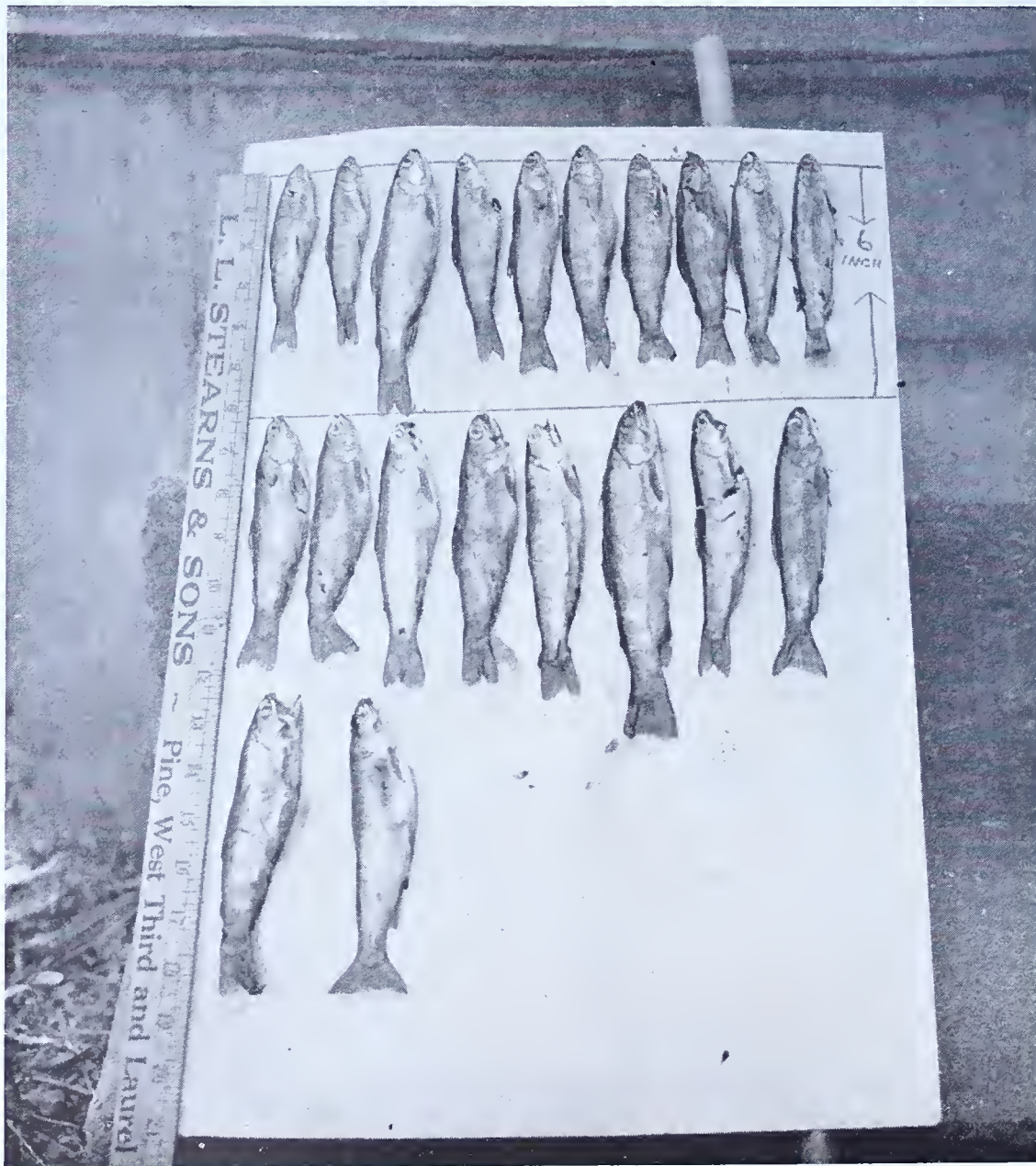
Cordially yours,  
Lee H. Diehl  
362 W. Broadway  
Red Lion, Penna.

## BASS CONTEST AT TOWANDA

The annual bass-fishing contest conducted by McCracken Brothers of Towanda will be resumed again this summer and fall, starting Saturday, July 1, when the smallmouth black bass season opens. Two prizes will be awarded, one for the largest smallmouth bass caught in the Susquehanna river between Ulster and Rummerfield with bass-bug or flies on a fly-casting rod, and one for the second largest smallmouth bass caught under the same conditions and in the same stretch of water.

Those desiring to compete must take their entries to McCracken Brothers' cigar store for weighing, measuring and registry. If McCracken's is closed, the weighing, measuring and registering will be done at *The Review* office.

The prizes are valuable assortments of bass flies and bass "bugs." Last year, the first prize was taken by Miles A. Conrad of Towanda who caught a 19-inch "blackie" weighing three pounds and 13 ounces. The second prize was won by Grover C. Marcy of Towanda who caught a 19-inch smallmouth eighth of an inch in length and weighing three pounds and two ounces.



This catch of brook trout was made on Eagle Run, a tributary to Plunkett's Creek, Lycoming county, by LeRoy Bracker, Williamsport. Arrested by Warden Carl Bidelspacher, Bracker was sentenced to pay a fine of \$150 or spend 150 days in jail. He was jailed for inability to pay. The catch consisted of 20 trout, 15 of which were under 6 inch legal size.



# MILLERSBURG ANGLERS SCORE IN RIVER

From F. Park Campbell, associate editor of the *Millersburg Sentinel*, an ardent sportsman and conservationist, comes word that the Susquehanna River in the vicinity of Millersburg, Dauphin county, yielded good sport for bass fishermen when the season opened. Park landed five bass, ranging in length from 11½ to 13 inches, and reports the following catches scored by fellow fishermen in the upper Dauphin community:

Among the anglers and their catches, from the Susquehanna river, were Roy "Biff" Rutter, 6, the daily limit, measuring from 10 to 12 inches in length; John F. Messner, 3; Dale Uhler, 2; Berwin Haine, 3; all 10 to 12 inches; F. Park Campbell, 5 bass, 11½ to 13 inches; Palmer G. Brown, 6, 10 to 16 inches; Henry Geyer, 4, 10½ to 14½ inches; R. Ray Miller, 4 bass; W. S. Umberger, son Winfield Umberger, and Marlan Walter, 7 bass; Guy Forney and Harry Shaffer, 2 bass and 2 Salmon; Berwin Haine and Earl Fidler, (on Sunday) 7 bass, 10½ to 14 inches; Ed. Haine, salmon, Saturday, 3 on Sunday, up to 3 pounds in weight.

The river ran muddy Monday afternoon but before the discoloration became thick Palmer G. Brown caught 5 bass, R. Ray Miller 3 and Lincoln E. Haine, 5 salmon, the largest 21 inches long.

Fishing on Tuesday was very poor because of the muddy water and only a few bass were caught in the river.

Catches by local anglers fishing in streams other than the river the opening days were Postmaster William L. Rothermel, 3 bass, the largest 17 inches; H. Howard Hoy, 4 bass, the largest 14 inches; James Brown, 5 bass, the largest 13½ inches, and Walter Miller, aged 12, 4 bass. Walter, who is a son of Mr. and Mrs. Frank Miller, landed a whopper of a bass, while fishing in the Mahantango Creek, Saturday. He fell in the stream a half dozen times while tussling with the big bass but he finally landed him and placed his prize on a cord stringer. Walter thought the bass was as long as a yard stick but another angler came along with a rule and found the bass to be 21 inches long, a beauty of a smallmouth.

Walter looked at his big fish, which remained very much alive on the cord stringer, frequently, lifting the bronzeback out of the water to better admire it. But the last time Walter pulled on the stringer and lifted up his prize beauty, the cord broke. The bass dropped into the Mahantango and darted out of sight. The lad's heart nearly did what the cord did and tears oozed from his eyes. He kept on fishing but the big bass did not come back.

No matter what you do, there is always some old-timer who suspected you would.

"Swing" music would be aptly named, if those who play it got their just desserts.

No wonder a fellow in love acts like a fish out of water—he's hooked!



Recalling horse and buggy days on Lake LeBoeuf, Erie county muskie water. Alton Skiff is shown beside this fine musky taken by Bert Skiff. The photo was taken at Waterford in 1908.

## URGES RESTRICTIONS FOR ERIE FISHING

In the following recommendations, I am voicing not only my own opinion, but that of many others in this vicinity, especially law-abiding sportsmen who confine their fishing to Lake Erie, and Presque Isle Bay. Perhaps these recommendations might be applied only to these waters. At any rate, I would like to have opinions from authoritative sources and the rank-and-file angler.

1. Only persons with fishing licenses be permitted in boats where fishing is done. Children excepted.
2. No night fishing—this is when the "pirates" operate to best advantage.
3. A closed season on all fish during spring.
4. Make all boat liverymen deputies, sworn to uphold the fishing laws.
5. Ladies not required to purchase licenses.

There are many "pirates" from Erie and the vicinity of Pittsburgh who fish illegally all through the spring months under cover of darkness, and some of the liveries are indifferent—they are interested only in renting boats for longer periods. Cases have been known where fishermen bring in large catches to the livery, then start out for more. Naturally a closed season in spring until bass season opens, will eliminate these abuses.

Many people without licenses accompany fishermen, and fish illegally until strangers approach. They lay their tackle down until danger is past, then resume fishing.

Many "pirates" fish in closed season exactly where they know spawning bass live.

Let us hear some further discussion in this connection.

For better fishing,  
HOWARD E. GILBREATH,  
President, Conneautee Range.

## HOW TO COLOR YOUR LEADERS

I am enclosing something which may be of interest to the fishing fraternity in the way of coloring leaders. I stumbled upon it quite by accident while working in the Research Laboratory of a large chemical company where I was employed years ago. This is especially good in mountain streams where your bed and water usually have a pronounced brownish cast of color, writes Al Snyder of Edgemere, Pike County.

Go to any drug store and secure 5¢ worth of Permanganate of Potassium crystals. (Less than this is only bought in Scotland). Take a glass vessel, a quart Mason jar is ideal, and fill with water. Drop a few crystals, and I mean only a few into water and keep stirring until dissolved. This takes but a few minutes. The resultant color should be a violet or purple. Place your leaders in this jar and let soak from a few minutes up to say 15 minutes for very dark coloring. Take leader out of solution and let dry without rinsing. When dry you will have a brown leader that can't be beat for mountain stream casting. Any shade of brown from light straw to deep Van Dyke can be had by length of time elapsed in soaking or strength of solution.

The best results can be secured by taking small pieces of gut and putting them in soak for different minute periods, drying and noting results as to color.

Note: This solution is very sensitive to organic matter and is worthless after a few hours due to its oxidizing property when brought in contact with any organic matter.

The 5¢ investment is enough to color hundreds of leaders.



## RECLASSIFY TROUT AREAS IN LEHIGH

Under the present approved trout stocking of the Little Lehigh by the Fish Commission there exists what is known as a "neutral stretch" between the entrance of Swabia or Swope Creek up to Schmoyer's mill dam, writes Charles H. Nehf. The area, approximately two miles in length, is not to receive any trout according to the present rating of the Little Lehigh.

When the original survey of the stream was made some years ago there was a far different opinion of its carrying capacity for trout than now. At that time the lower section from Swabia creek down to the Big Lehigh was approved for the stocking of brown trout and the upper section from Schmoyer's mill dam to its headwaters was listed for the stocking of brook trout.

Separating the brown and brook trout was a neutral stretch which was to allow a suitable section of water between the two species of trout. This rating of the stream had existed for many years until, as at present, a newer movement is taking place.

This past spring, through the efforts of the Rural Sportsmen's Association in Trexlertown, Spring Creek, Iron Run and Breinig's Run were reclassified from brook to brown trout streams. Since these three streams form a major source of water supply for the Little Lehigh and their rating has been changed, a revision of the entire stream is being suggested by the local county federation.

The newer plan, formally presented by the Macungie Rod and Gun club, would classify the entire Little Lehigh east of Route 100 as a brown trout stream. This would eliminate the present two mile stretch of supposedly unstocked trout waters and add more stream mileage to the creek. With greater area it is also expected that the fish commission will supply the sportsmen of the county with more adult trout for the Little Lehigh.

During the past spring adult trout scheduled for the lower Little Lehigh were stocked in the area between the Swabian creek up to beyond East Texas.

## WILL SPONSOR BASS CONTEST

Pleased with the results of his trout fishing contest, P. F. Hess, of Hamburg, Berks County, has announced a bass fishing contest to open July 1 and close Nov. 1, 1939.

Mr. Hess will award \$5.00 worth of fishing tackle to the person catching the longest bass in any Pennsylvania stream or lake. A purchase of equipment at his store entitles anyone to enter, but registration is required when the tackle is bought.

Bass must be brought to the store for measuring and weighing. In case of a tie in length, the heaviest bass will win the prize.

The *Hamburg Item* will co-operate with Mr. Hess in this new venture by publishing periodical reports. When bass are weighed and measured, angler will be required to fill out a form sheet, including his name, age and address; the place and date of catch, its length and weight.

Sportsmen are also advised to have some friend take a snapshot of them and their catches. If such a picture of the ultimate winner is available, it will also be published after the close of the contest.



Walter Horton and son of Martinsburg, R. D., with an 18½ pound carp caught in Clover creek, Blair county, by Horton.

## BERKS WALTONIANS WILL RAISE FISH

With 6,990,000 gallons capacity, the city of Reading's proposed new fish breeding plant, Egelman's Reservoir, was on July 1 turned over to Reading Chapter of the Izaak Walton League.

Catfish, sunfish and bass will be grown there in vast numbers, if the Waltonians' plans pan out. Legislation permitting the chapter to take over both basins at Egelman's, the small upper section and the larger dam below, neither in service in the water bureau for the last five years, was introduced in council by Director Howard McDonough, of the parks and public property department. After going out of service as part of the water system, Egleman's became part of the city park bureau. The reservoir adjoins the park of that name.

The three species of fish will be raised in the Egleman property because they use different types of food. They will be stocked in sizes nearly equal, thus preventing the cannibal varieties from preying on live fish of other kinds.

The least the city has executed with the Walton League chapter will be good for five years, until June 30, 1944. A fisherman himself, McDonough has co-operated actively with the league for several years. Last year he set apart a section of the Bernhart's Dam area as a fishing reserve for junior anglers, boys and girls.

The chapter will carry the cost of stocking Egelman's, patrolling the area and distributing the fish to other bodies of water when the number bred become too large.

## MEETS FOR SPORTSMEN PLANNED IN CHESTER

The American Legion, Downingtown, and the Chester County Rod & Gun Club, Inc., Coatesville, Pa., combining, five sporting events will be staged on the latter's grounds, Thordale, Pa., this summer. The dates:—

Saturday, July 20 (afternoon) a registered shot gun clay target race of 75 targets and a piscatorial tournament, fly, plug and surf casting. Henry Bickel, Physical Director of the Y.M.C.A., will have charge of latter. Useful trophies will be awarded for both these events.

Sunday, August 20 (afternoon)—Registered shot gun clay target match, 100 targets, Chester County Championship. George D. Baldwin, President of the Pennsylvania State Trap Shooting Association, West Chester, Pa., now holds the crown. Besides the championship classic there will be five man team race, ten counties participating, Chester, Lancaster, York, Philadelphia, Montgomery, Berks, Bucks, Lehigh, Schuylkill, Delaware, and Columbia. The team race will create much interest because each county will enter as many teams as it chooses, naming the participants before the shoot starts. Norman M. Wood, Secretary of the Chester County Club, well known among sportsmen in this and adjacent states, has arranged the unique blue ribbon classic.

Sunday afternoon, August 27, the club will stage a Raccoon trial. "Bill", Rodgers, Uwchlan, well known among 'coon hunters, will have charge. Nat Garman, Reading, will be one of the officials. The trials will take place at Thordale, 26 miles West of Philadelphia, on the Lincoln Highway. The trial will be open to all states and a big field of entries is anticipated.

The next big event will be on Saturday afternoon, October 14 at Thordale, when a 100 shot gun clay target match will take place. The affair will be registered and there will be \$50.00 added money for the marksmen. There will also be a rifle and revolver tournament on the same day.

In the spring the club is looking forward to the construction of a lake on its land to be stocked with trout.

## CARP AND CATFISH FOR JUNIOR POND

One thousand silver carp and catfish, averaging a foot in length, were placed in the Watons town Municipal pool recently. The fish were stocked by the Fish Commission.

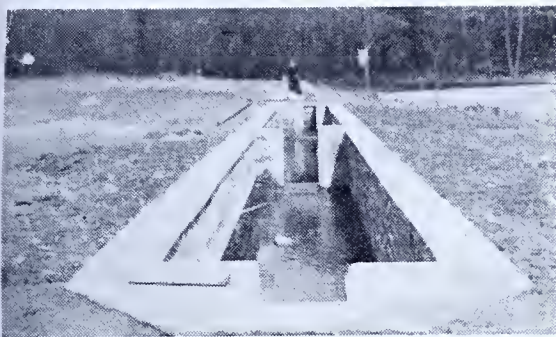
An effort will be made in the near future to organize a junior sportsmen's association to promote the fishing sport in the community. A meeting will be called at the Municipal building, and rules will be drawn up to regulate fishing in the pool.

All children up to the age of 16 years will enjoy fishing in the pond.

Fifteen minutes after the pool was stocked, Billy Dutrow, of North Elm Street, was successful in catching three fine fish.

Word spread rapidly of the placing of the fish in the water, and soon the banks of the pool were lined with boys and girls, carrying their lines and tackle.





Rearing pond for trout.

## "FISH FOR SPORT" GROUP GROWING

To use an old expression, it takes all kinds of trout fishermen to make a world observes Jack Richards of Pottsville, Schuylkill County. There are those who stoop to any ends to catch the quarry they pursue, even to dynamiting. There are others who like to come home and brag about the limit catches they have taken and killed, even though some of these trout barely met the legal requirements. Then again there are others—and this latter group we are finding is growing larger in number each year—who go out for the sport alone and who kill a trout only occasionally, returning most of those they catch to the stream unharmed.

If we had more of this latter group it would be possible to enjoy good trout fishing on county streams during the whole season.

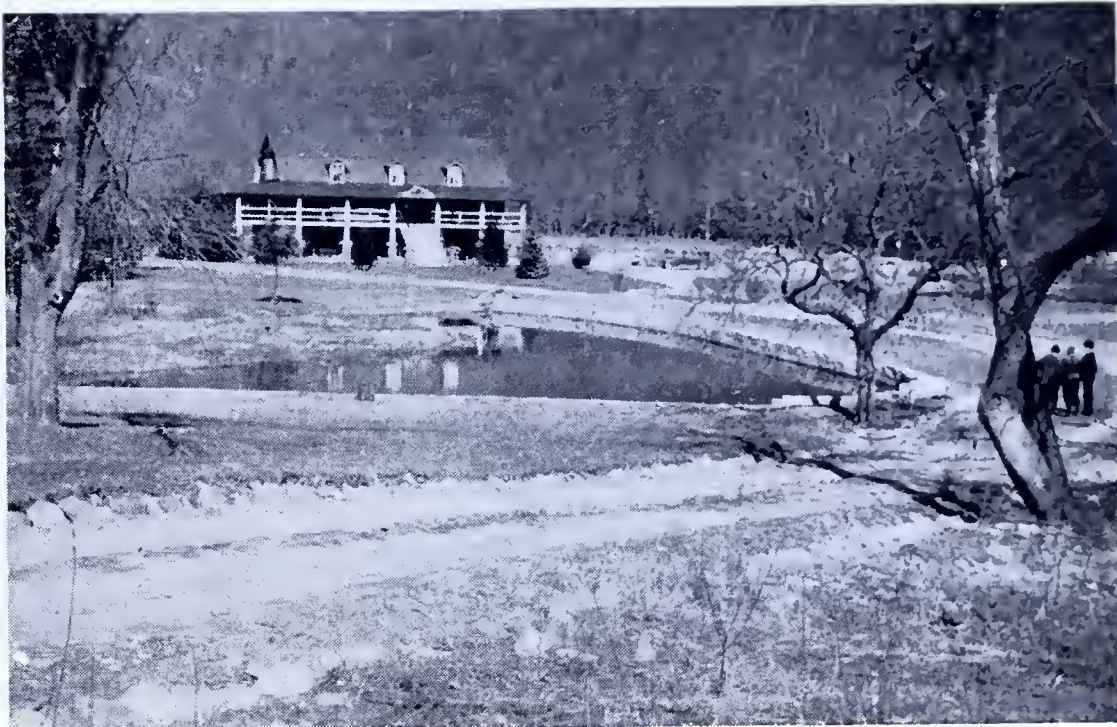
Every community has a few fishermen who belong to this latter class, but it seems to us that the town of Pinegrove has a greater number of them than any other. We are thinking of Dr. George Wynn, Al Bond, Bruce Henninger, and Walter Athey when we say this. There are many more Pinegrove anglers who could be ranked in this same category but to date we haven't learned the names of all of them.

Most of these Pinegrove fishermen enjoy their sport at High Bridge. They catch trout nearly every time they go out, but most of the trout they take are returned to the stream. That is one of the reasons why High Bridge retains its trout during the season year after year.

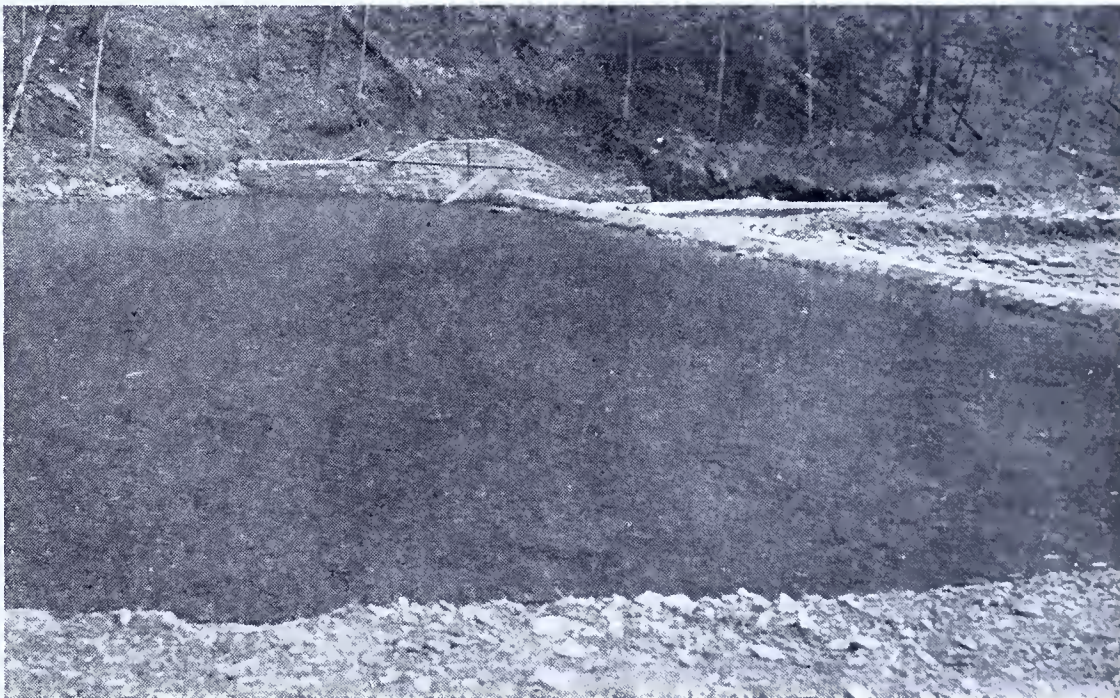
Dr. Wynn has fixed for himself a ten-inch limit when he fishes that stream. He takes nothing under that size. Al Bond, ace of county fishermen, catches and returns regularly to the stream 16 and 18 inch trout. He goes fishing for the sport. He knows they will be there next time he goes out.

One meets more fishermen of this type at High Bridge than on any stream anywhere. There seems to be something about the fish in that creek which makes one want to return them, to give them a chance to grow up so that they will be better able to offer greater thrills as the years go by. There are trout in that stream which have pet names, which are known to most of these anglers mentioned above. Some of them have been there for four and five years.

It is one of the most pleasant thoughts of the season—to know that this group of fishermen who place the love of sport above all else is growing. We meet many fishermen while camping over week-ends along that stream. A short time ago we talked to an angler who regretted that he had an eight-inch trout



Elks Country Club house on Right Hand Branch of Youngwoman's Creek, Clinton county. These three views give a fairly good idea of the splendid trout nursery project now completed.



Dam which retains water for nursery.

in his creel, hurt so badly that he was compelled to kill it.

Such an attitude on the part of those who fish there is a source of much satisfaction to us. We have always advocated trout fishing for the sport, not for limit catches. If more fishermen would join this group what pleasure

one could have on county streams throughout the season.

We would like some day to see a club formed of anglers who go out for the sport only and who refuse to take a trout unless it has reached a size which they feel one can keep with pride.

### BOARD OF FISH COMMISSIONERS

HARRISBURG, PA.

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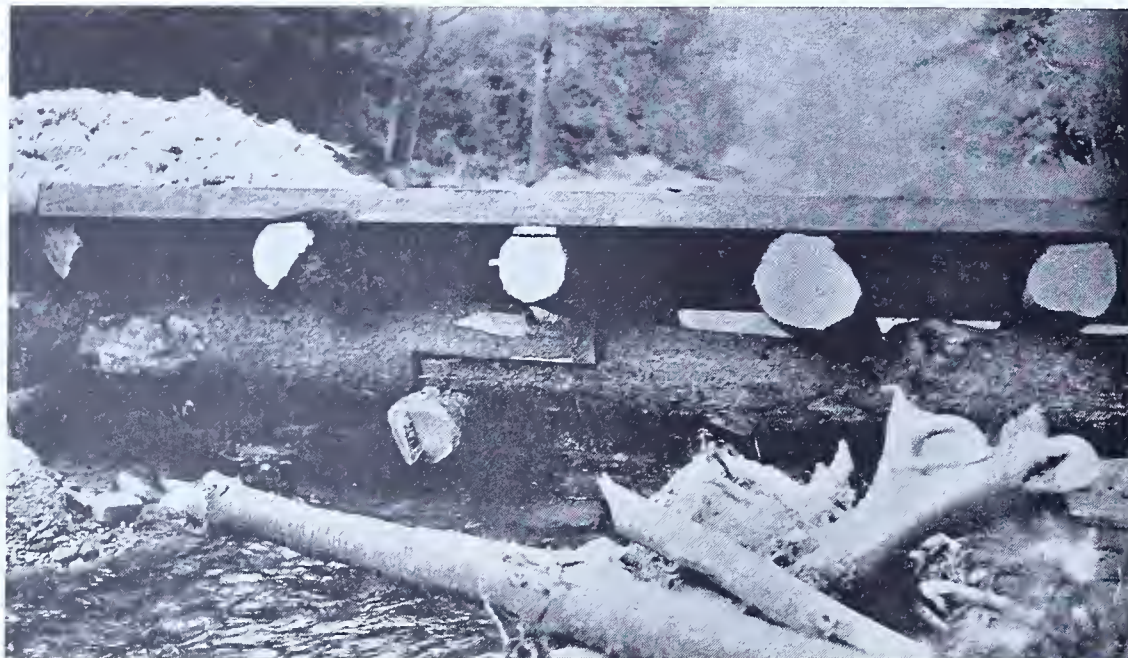
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City





Good workmanship has been emphasized in the stream improvement program in the North Central Division of the Pennsylvania Federation of Sportsmen's Clubs.

## WHITE RESIGNS: CLUB SECRETARY 27 YEARS

Twenty-seven years of continuous and faithful service as secretary of a sportsmen's organization is a long time, writes Warden M. E. Shoemaker, yet Harry N. White, of Towanda, has served in that capacity for the Towanda Gun Club since 1913 in a manner that has met with approval of the members and general public. His reputation and character as a sportsman, friend and servant for others has been an outstanding feature of his general civic activities.

His resignation was recently made only because he had no other choice in the matter because of other duties which demanded his time. His interests in the welfare of the club and its 200 members, however, will not be forgotten and he will continue to give his advice and moral support to an organization of which he is proud.

This organization—believed to be the oldest gun club in the United States—was organized January 29, 1880, with seven members. Very shortly after, the first trap shoot was held in which five of the members participated in shooting glass balls thrown from a Bogardus Glass Ball Trap. The net profit of this shoot was exactly twelve cents. Since that time a plot of ground has been purchased and is equipped with modern trap shooting devices. Many shoots have been held on this spot and the most recent shoot was held May 7, 1939, in which more than 3000 rounds of ammunition were used.

This club was reorganized in 1888 with a membership of 53 at \$1.00 per year. On March 30, 1908, a charter was granted the club and more members were taken in. The same year a cabin was built along the Schrader Creek at Cabin Run. This served as a fishing and hunting lodge for many years for the members until the Game Commission purchased the land.

In April, 1911, a large frame house, overlooking the North Branch of the Susquehanna River at Homets Ferry, was purchased. This property has been completely remodeled and equipped with modern conveniences and serves as a recreational center for the members and their friends. During the past few years there

has been an average of more than 1000 people per year who have visited the club house to enjoy the fishing in the Susquehanna River.

It is of considerable interest to know there are four original members still enrolled with the club who have never missed a year's payment of dues or a meeting unless sickness prevented their presence. Frank Montanye, L. M. Osborne, Otto Mayer and William F. Dietrich, all of Towanda, still enjoy being with the members at the meetings even though they cannot participate in the more strenuous activities. William Dietrich has been the Treasurer of the club since its organization. He is now 87 years of age and still going strong.

A secretary who could keep things moving for 27 years and keep the interest at a high pitch certainly has accomplished a job that is worthy of the approval of every sportsman of Pennsylvania who is interested in conservation. Harry White has given of his time and unselfish service in a manner that has won him many many friends and his success in the future is the wish of his host of friends throughout the state.

## FAVORITE FISHING SPOTS ON ALLEGHENY

Off and on through the various editions of the PENNSYLVANIA ANGLER I have read articles on the Allegheny River and feel that I can possibly add some additional information and words of praise for this stream, writes W. T. Patterson of New Wilmington.

In this account I will combine from my diary the experiences and information gleaned from two "floats" from the state line to Tionesta plus numerous week-end and daily jaunts to the river.

Between Corydon, near the state lines and Kinzua the fishermen from the Bradford-Kane district enjoy real success with both plug and bait for bass. Near the mouth of Hodge Run, Sugar Run, and Willow Creek it is possible to pick up an occasional large rainbow trout while fishing fly and spinner for bass. Fisher-

men expecting to catch muskies in this stretch will be disappointed as they are the exception rather than the rule.

From Kinzua down to Warren the river deepens and gets wider. Below Kinzua there is a large railroad bridge crossing the river. This stretch is quite deep and holds plenty of bass, but best of all some muskies. The next stretch down the river from the railroad bridge is Big Bend and it is well known for its bass and muskies. The two stretches mentioned above in all probability rank equal to if not the water above Thompsons Eddy. Below the flood wall in Warren, you can add variety in the form of wall-eyed pike. These wall-eyes seem inclined toward the weighted fly and spinner reeled in slowly on the bottom.

Between Warren and the Brokenstraw Creek the water is deep and sluggish. Few fishermen seem to visit this stretch, but it does contain some fine fish. The Brokenstraw itself is a fine bass stream, and here again there is a possibility of connecting with large browns or rainbows.

Several fishermen in the vicinity of the Allegheny-Brokenstraw junction told me there were no muskies around there. This I do not believe for I took a fine muskie last year, just below the mouth of Brokenstraw, on a number six fly and spinner while casting for bass.

From Brokenstraw Creek to Tidioute the number of fishermen and cottages increase, but the fish supply never seems to diminish. Your chances of taking a muskie along with a fine catch of bass are better. Boats are available at many places along this stretch but the nature of the river is such that you can fish quite readily by wading the shoreline.

Moving down from Tidioute to East Hickory there is as nice bass water as you will find anywhere in the river. Boats and lodging are available at many spots, but they are usually taken from the 1st to the 4th of July. After that date accommodations are easy to secure.

East Hickory to Tionesta is a repetition of the Tidioute to East Hickory stretch. It contains large numbers of bass, a few muskies and water that is easy to fish.

Down the river from Hunter Station Bridge to Oil City there are many cottages and boats; too many in fact; but the fishing is fine.

Taking the river as a whole one might say there are fish everywhere. The trick is to locate and hook them. To the "muskie hound" or those aspiring to catch muskies I will make this statement. "Every sluggish backwater, formed on the offside of a large island, contains one or more muskies." This is a statement upon which I will "Stand Pat." I would furnish the exact location of several of these "muskie backwaters" but a high powered rifle did some dirty work in one that I know about, and I don't care to have every Tom, Dick and Harry know their exact location.

As to baits for the Allegheny that is your own problem. If a fisherman put all recommended baits into his tackle box he wouldn't get a chance to fish. There wouldn't be enough time to change bait. Personally I can do nicely with a small assortment of flies and spinner combinations plus a couple of under-water plugs and a surface plug.



## PRIZE WINNERS IN CHESTER CONTEST

Big fish are to be found in Chester County waters, thanks to the Fish Commission and the cooperation of anglers who have been interested for many years in stocking the creeks. The two hundred fishermen and hunters who attended the twenty-third annual banquet and entertainment of the Chester County Rod and Gun Club, Inc., at the Coach-and-Four-Inn, Coatesville, found this was no fish story. To take largemouth and smallmouth bass from the waters of Chester County that measured  $22\frac{1}{2}$  inches, 6 pounds 3 ounces in weight and  $20\frac{5}{8}$  inches and 4 pounds, one ounce in weight seemed unbelievable. However, affidavits were there to prove the catches were made when prizes were awarded by the club to many anglers, a feature that has been carried on for many years.

Hon. William H. Moore, President of the "Camp and Trail," Philadelphia, was the guest speaker. Doctor Moore, formerly a Pennsylvania Game Commissioner, told how this State had gone forward in game and fish conservation. He pointed out the demand for more game birds and what the State had accomplished through its game farms and also stressed the importance of educational activities in all Federal and State Conservation Departments.

Harry M. Zook, Pottstown, President of the Association, gave a brief talk and then turned the meeting over to Hon. W. E. Greenwood, President of the Third Class Cities League of Pennsylvania, who very ably officiated as toastmaster. Horace Pyle, County Fish Warden, gave the number of fish and named the streams that had been stocked in the county, while Jarvis E. McCannon, Game Protector, gave out the list of game distributed in the county.

Hon. William G. Gordon, a local attorney, pleased with some recitations, "Casey at the Bat" and "Old Mother Hubbard Went to the Cubbard."

A fine turkey dinner was served and a pleasing vocal and instrumental entertainment followed. Among some of the guests were: Hon. Butler Windle, Ernest Harvey, Judges of the Chester County Court; S. W. Ridgway, and Senator George B. Scarlet, member of the Game, Fish and Forestry Senate Committee, who gave a short talk on game and fish conservation.

The splendid affair concluded with motion pictures of trout fishing and game animals. The club, one of the oldest in Pennsylvania, was founded by Norman M. Wood, well known sportsman, writer, lecturer and camera man.

Here are the names of those who received fishing tackle as prizes:

Largemouth bass, J. C. Mace, West Grove,  $22\frac{1}{2}$  inches, 6 lbs., 3 ozs.; H. L. Johnson, Chatham,  $21\frac{1}{2}$  inches, 5 lbs., 3 ozs.; Winfield Hooen, Coatesville,  $20\frac{3}{4}$  inches, 4 lbs., 10 ozs.; Steven Cross, Coatesville,  $20\frac{1}{2}$  inches, 4 lbs., 4 ozs.; Alvin Wise, Downingtown, 20 inches, 4 lbs., 12 ozs.; Leon Guiney, Coatesville, 18 inches, 3 lbs., 4 ozs., and John Clark, Beaver Dam,  $17\frac{1}{2}$  inches, 2 lbs., 12 ozs.

Smallmouth bass, Samuel E. Fuller, Coatesville, 17 inches, 2 lbs., 6 ozs.; George Abbott, Honeybrook,  $20\frac{5}{8}$  inches, 4 lbs., 1 oz.; Roy Foreman, Paperville, 19 inches, 2 lbs., 11 ozs.; and David N. Wolfe, Coatesville, 19 inches, 2 lbs., 6 ozs.

Rainbow trout, Francis Pyle, Coatesville,  $14\frac{1}{2}$  inches, 1 lb., 4 ozs., and W. M. Crossen, Sadysburyville,  $13\frac{1}{2}$  inches, 12 ozs.



Fly fishing for trout has no more staunch devotee than Dr. Richards Hoffman of Bellefonte.

Brown trout, Ezra Morrison, Coatesville,  $14\frac{1}{2}$  inches, 1 lb.,  $2\frac{1}{2}$  ozs.

Salmon (Wall-eyed Pike), Leon Guiney, Coatesville,  $23\frac{1}{2}$  inches, 3 lbs., 14 ozs., and Edward Schmidt, Coatesville, 22 inches, 2 lbs., 12 ozs.

Fall fish, Leon Guiney,  $14\frac{1}{2}$  inches, 1 lb., 4 ozs.

Sunfish, Oliver Gately, Coatesville,  $9\frac{1}{4}$  inches, 10 ozs.

Carp, Carlton Boyd, Coatesville, 33 inches, 22 lbs., and Herbert C. Pike, Coatesville, 30 inches, 10 lbs., 4 ozs.

Edgar Pennegar, Chairman of the fishing contest, awarded the prizes, which comprised creels, reels, lines, fish buckets, landing nets, casting and fly rods, packages of dry and wet flies, plugs, etc.



Edith McKee, 14, of Clearfield with a fine 19 inch rainbow trout she caught this year at the Spring Creek project.

## PIONEER CONTEST IS ANNOUNCED

The 1939 fishing contest rules of the Pioneer Fish and Game Protective Asso. Inc., of Allentown are as follows:

1. Any entry for competition must be made personally by a bona fide member of the association. Membership must date at least 15 days prior to entering the fish.

2. All fish must be taken legally, in the open waters of the Commonwealth, or the Delaware River.

3. A sworn affidavit must accompany the entry of the fish, made either before an official of the law or employe of the state fish, game or forestry departments and must be weighed and measured within 24 hours after making the catch.

4. Weight will be given preference to length should several fish measure exactly the same.

5. In the event two or more fish weigh and measure the same, the prizes offered in this case will be duplicated or more if needed.

6. This contest opens Jan. 1, 1939 and closes Nov. 30, 1939.

7. All entries must be in the hands of the Fish Awards committee on or before January 1, 1940.

8. Length shall be taken from lower jaw with the mouth closed to the tip of the tail. Girth shall be taken at the widest part of the fish.

9. The time of awarding the prizes is to be selected by the Fish Awards committee in conjunction with any meeting of the association.

10. Awards, first and second, are to be given senior and junior members in each of the following classes—Brook, brown and rainbow trout; small and large mouth black bass; perch, sunfish, chut, wall-eyed pike, pickerel, catfish, sucker, calico bass and crappie.

11. Fish entered for competition must be registered with either of the following members of the fish awards committee: Harold Moll, 1017 Catasauqua Rd., Fullerton; William Talbot, 716 N. Kiowa St., Allentown; William Snyder, 1001 Howertown Rd., Catasauqua; Allentown Sporting Goods Co., Witwer Jones Sporting Goods Co., Sam. Berkemeyer, 922 Court St., Allentown, James Biery, 316 N. 8th St., Allentown; Wayne Schneck, Mountaintown.



An  $18\frac{1}{2}$  inch brown trout taken by Charley Fox, of New Cumberland.



## BUCKS SPORTSMEN BACK BIG PROJECT

An \$18,000 WPA project, which will result in the complete rebuilding and restoration of the historic Castle Valley dam in Doylestown township, is now well under way. When completed in late August the famous old Reed's dam, to which place kids by the hundreds tramped miles to swim in years gone by, will be one of the outstanding recreation spots in Bucks county.

Thirty-five men are employed on the project at present and it is now nearing completion. The entire project is sponsored by the Bucks County Fish, Game and Forestry Association and is the result of a movement started a number of years ago by the county sportsmen and an organization once known as The Acorn Club, of New Britain, whose main objective was preservation of the beauty of the Neshaminy Valley as a playground for the young and old.

The Bucks County Fish, Game and Forestry Association is paying for material on the restoration project and Federal funds are being used to pay the balance, including labor.

It was hoped to have the entire project completed for this year's annual outing of the association which was held at Paul Valley Park, Neshaminy, along Route 611, June 28, but the plan was finally discarded until the 1940 outing.

With the completion of the dam, the water of the Little Neshaminy creek will be backed up for a distance of more than two miles and will make an excellent swimming pool, fishing place and general recreation center for the summer season and an excellent skating place in the winter season.

The breast of the dam will be 267 feet wide. At present a temporary retaining wall has been erected across the creek, taking the water through the old mill sluiceway until the bottom of the dam is cleared. At some future time it is planned to clear the undergrowth below the breast dam, if an additional WPA project can be financed.

Anthony A. Beshel, secretary of the Bucks County Fish, Game and Forestry Association, said that the association has a 99-year lease on the Castle Valley property, with fishing privileges, and that he has been assured that the Fish Commission will stock the creek amply.

The adjoining mill, at the one end of the breast of the dam was built 141 years ago. A nearby stone house, is still in condition that it could be converted into a sportsmen's headquarters for summer outings and year-around meetings. The mill was built by David Grove in 1798. On April 10, 1852, the late Samuel and James Reed, purchased the property from heirs of David Grove, who came to Bucks county from Upper Salford, Montgomery county.

Thousands of residents of both Bucks and Montgomery counties knew Reed's Dam as the old swimmin' hole and camping site.

The original homestead on the site was once in the possession of William Patterson, on the former farm of Monroe Buckman.

History states that it was within the mind of one Thomas (Crazy Tom) Meredith, as he was called by his contemporaries, to build a great castle on the southerly banks of the Neshaminy, beneath the shadow of the evergreen hills that rise beyond—thus the name Castle Valley.

Accounts of the origin of Castle Valley further stated that there was no asylum in "Crazy Tom" Meredith's day, and in the execution of his wild castle project he was wisely indulged, as it gave vent to his thought and due employment to mind and body, without harm to any one. He was furnished with a leather apron, in which he industriously carried stones, day after day, which he piled in a circle as high as his head. He also cut down trees, which he had transported to the site, near the present Almhouse Road.

At length, according to record, his strength failed, his weary toils were at an end, the restless hand reposed in the stillness of death, and the darkened intellect thought and planned no more. These stones which Meredith had industriously piled upon the Neshaminy's banks, remained in great quantities for a long time after. The quiet vale became known as Castle Valley, therefrom, and which name it bears to this day.

Even within the memory of some living a comparatively few years ago, great quantities of stones and logs were hauled away and used in building the first bridge over the stream, and also in the erection of several dwellings.

Today for the first time in a number of years Castle Valley dam is the scene of much activity, a WPA project which will give Bucks county another picturesque recreational center.

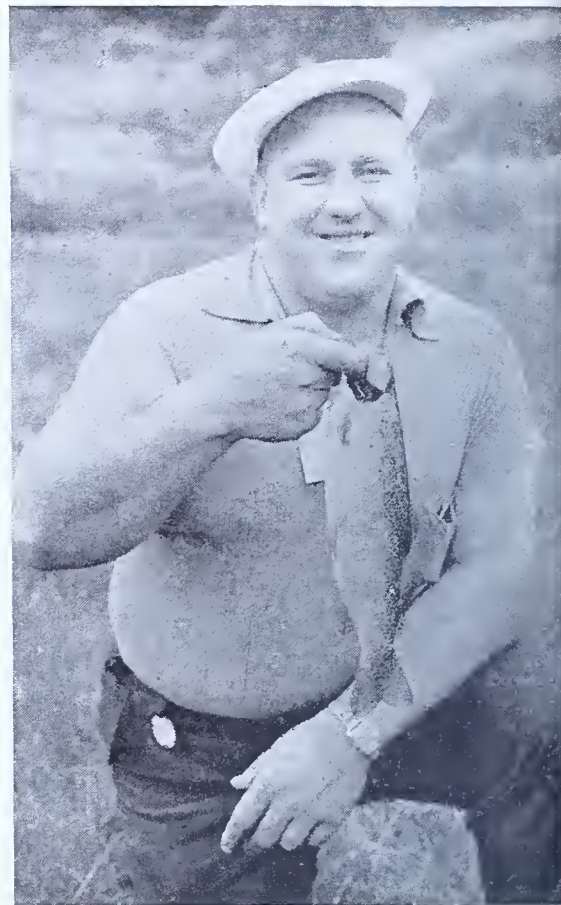
## BULLHEAD FISHING HAS ITS APPEAL

Trout fishing is an active pastime in which one travels up and down the stream, then across and around, past this hole and that (which was found out to be too deep to navigate without swimming) and making that right elbow move nearly 5000 times during the casting process of a day's fishing writes Tom Luckens of Pottsville. Active men do get a real kick out of that sport, and unfortunately some have no respect for those content to sit by the side of a pond and wait for the bull heads.

Fishing for catties is not so strenuous, in fact it almost borders the inactive and it does afford time between bites to think of the times he was dunked in the creek while going for trout. Perhaps a slippery rock was tread upon, or, both feet got caught under a rock at the same time, or, another time apparently knee-deep water proved to be waist deep. Swell to think about, especially when waiting for the mud cats.

Those who have the patience to wait and enjoy things about them will truly find a host of things so interesting that some times they forget to watch their float. There is that kingfisher moving up and across the pond, then back again, pausing long enough on occasions to see if there is a meal within hailing distance under the surface, and then the plunge and the retrieve. They seldom miss.

One time at Sweet Arrow Lake we were so quiet while doing this type of fishing that a squirrel came within several feet of us to nibble at part of our lunch. That was something worth seeing and something impossible to get in other ways, because the minute we moved the squirrel was gone. Along the pond one can almost imagine that he does not have a care in the world. Just settin' and



This 19 inch rainbow trout was caught by Leonard Wentz, Shenandoah, in the trout contest of the Shenandoah Fish and Game Association, staged on Little Catawissa Creek, Schuylkill county. Weight 3½ pounds.

watching everything beautiful. Yes, the fellow who is awake can see some fine things take place out there in front of him.

Every time he goes out he sees something different. He may see the parents of a large school of young catfish take them up and down the shore line, possibly in search of food for the young, or perhaps getting them acquainted with the natural protection of the rocks and weeds for the time when he will consider his work completed and they must strike out for themselves. Notice how that fellow protects his family from the ever hungry crappie bass and his relatives, chasing them a safe distance away every time they put in an appearance.

Yes, they can be caught at this time. Not because they "bite" at the food offered, but because the object placed in that school may interfere with their young. The herder has taken an empty hook we dropped there and carried it five or six feet away from the school. He could have been hooked at that time, but that is something we refused to do for the simple reason that he is protecting for the fisherman a thousand or more catties for future fun. To take him would mean that within a short time many would stray from the school and the bluegills, crappies and other game fish would soon make short work of them.

Occasionally one of the small fish will apparently get a bit too close to the daddy of the lot and it is drawn into the mouth along with the water used for the breathing process. We have never seen any return. The number that the parent fish seems to destroy is very small, and their efforts in protecting the school should be worth an occasional morsel. So, never take advantage of the daddy if you want to catch bull heads. If you don't care to fish for them, honor the feelings of those who do.



## TROUTING CONTEST HELD ON BUSHKILL

Stanley J. Fehr, of Nazareth, won first prize of a fine reel in the Easton Fish and Game Association's trout tournament on June 24-25. Fehr caught a 17¾ inch brown trout in the Bushkill Creek, scene of the tournament, and his catch surpassed that of about 150 other entrants.

Missing out by 1½ inches was Russel Stair of Hellertown, who came in with a 16¾ inch beauty to take second prize of a 13 inch fish creel.

Also snaring a 16¾ inch brownie was Stewart Kuthel of 234 Messinger Street, Bangor, who received a fly rod donated by William Long of Easton. Fourth prize of three gut leaders went to W. J. Seiple of Easton. Seiple's catch was a 15½ inch brown trout.

Mrs. Minnie Seiple, wife of the fourth place winner in the men's division, caught the largest fish among the women contenders by hooking a 14¾ inch brown trout. Mrs. Seiple received a bamboo fly rod as first prize.

Another Easton woman took second prize when Blanche Rutherford pulled in a 10½ inch rainbow. The prize for this catch was a landing net. Third and fourth place prizes were unclaimed.

The largest catch among the boys entered in the tournament was made by John Wise, Jr., of Bangor R. D. 13 who hooked a 16½ inch rainbow trout to take first prize of a minnow net. Second prize was won by Eugene Basta of Easton with a 14¾ brown. Basta was awarded a tackle box.

James Rafferty of Easton caught a 12 inch rainbow and William McAnnelley of Bethlehem brought in an 11¾ inch brownie. Rafferty got a dry fly box for third prize and McAnnelley, only seven years old, won a spinner donated by Sears-Roebuck.

First prize for girls was won by Grace Smith, seven years old, of Easton. Grace, who is only seven years old and who had never caught a fish before, pulled in an 11¾ inch rainbow. When she caught the fish she was so excited that she ran about 100 yards about the bank, screaming delightedly to her parents. She was awarded a leader box. Second, third and fourth prizes in this division were unclaimed.

The prize for boys for the largest fish caught before nine a. m., Saturday was won by Fred May who landed a 10½ inch rainbow. May, was given a dry fly box, lives. Grace Smith won the prize for girls in this division and was awarded a prize donated by the Easton Barbers Supply Co.

Neither one of two tagged fish was reported and Paul Armstrong, president of the Association and judge of the tournament, said that no awards will be made for these fish if they are caught in the future. Prizes donated by Moe Silverstein and Armstrong were to have been awarded.

Armstrong said on the first day that the tournament was the largest and the best fished of any tournament ever held by the association. More than 1,000 trout were taken and several hundred on the 25th by the contestants. Armstrong also spoke highly of the sportsmanship of fishermen who, although the stream was not posted, refused to take advantage of the fact by beating the gun on the first morning.



Permanence is emphasized in this well constructed Hewitt-type dam.

## HOW TO MAKE TURTLE SOUP

The ANGLER is indebted to Art Fletcher of Bedford for the following dope on how to prepare and cook snapping turtles and wood terrapin or red legs. Sometime if you happen over Bedford way, stop to call on Art who ranks with the best when it comes to making snapping turtle soup and whose blacksmith shop you'll find festooned with turtle shells and saturated with geniality.

Take the snapping turtle and *dip* him in boiling water, three times, and hold him in the steam between dips. You can then rub off all the outer skin and roughage "just like scaling a fish." Then you can run a knife around the outside and separate everything from the top shell and cut the under shell loose and all the meat and contents come free. The *inner* skin, cleaned of the outer, is just as good as the rest of it.

The innards to be rejected are the various bladders and if you don't like the idea of eating them, the intestines, but they are perfectly O. K. if cleaned and cut up in short pieces. Mrs. Rorer includes them in the desirable parts of terrapin.

In both the snapper and the terrapin, the gall bladder is big and is *buried* and quite fast in one lobe of the liver. If it is broken, anything the contents come in contact with is done for, so it is well to remove the liver as whole, separate the lobes and work separately with the one containing the gall bladder, working in from the outsides so as to save as much as possible before and if the sac is broken. This is the toughest and most important detail of butchering any sort of turtle—and the liver is perhaps the best part of the whole.

The meat and the shells should go in the icebox for about ten days freezing. A certain amount of parboiling is next in order depending on size and age and the good judgment of the cook, and lemon juice added helps to break up the fibre and rid it of the rubbery texture characteristic of the brute.

The meat, fried as one would fry chicken, is most delicious and is much preferred by lots of folks to the soup idea.

For soup, follow the cook book or your own ideas as to any and all sorts of vegetables. Fletcher's own system is to buy a small can of the best vegetable soup to be had and merely dump it in the pot when the meat is cooked. And *don't forget* to put the shell in when you

cook the meat because it adds a value and flavor all its own.

All of the above goes for terrapin as well with the exception of perhaps one very important detail; Mrs. Rorer says to put the victim in boiling water for fifteen minutes and then take him apart. Her recipe is of course, for the Maryland Diamondback. While this length of time accomplishes perfectly what one wants as to the ease of taking the terrapin apart, it also cooks and softens the liver to the point where it is almost impossible to get the gall bladder out whole. By whatever time you shorten the fifteen minutes, you thereby increase your trouble in taking the terrapin apart and there is somewhere a happy medium that can only be gained by experience.

Any eggs found in the subject are of great delicacy and do not, of course, need all the cooking and par-boiling the meat goes through. They, of course, go into the soup at the proper time, or into the gravy if frying is the final treatment.

Some think the wood terrapin is better eating than the snapping turtle—anyway you cook him—and doubt if, with equal handling, he can be distinguished from the celebrated diamond-back.

## FOR A MOMENT'S SPORT

With the knowledge being general among men and youths as to the highly important part the male bass plays at spawning time, with the future of thousands of bass depending upon his guardianship, it might be thought incredible that there would be an individual who would seek to break the chain of life, with the future of thousands of fish being sacrificed for the sake of a moment's sport.

Yet the State Fish Commission is not pursuing a needless course when it directs all its field agents to be on guard in a specially zealous way, day and night, against those who might dare to violate the law by seeking to catch bass out of season.

For there are those so indifferent respecting the preservation of the sport of fishing, as to dare to go fishing for whatever they may catch, irrespective of the closed seasons which are fixed for the specific purpose of safeguarding the continuation of the species.

It is difficult to believe that indifference should exist, to such a degree, but it does.

—Editorial—*Latrobe Bulletin*.



## YOUR FLY FISHING EQUIPMENT

(Continued from Page 11)

maddened by the color, comes up, thinking, from the pretty sight, to get a dainty mouthful. When, however, it opens its jaws, it is caught by the hook, and enjoys a bitter repast—a captive."

The gentle prioress whose name occupies an immortal niche in angling annals with that of Izaak Walton, Dame Juliana Berners, discussed fly-fishing as an art well known in 1496. She observed in her *Treatyse of Fysshynge with An Angle*.

"Thyse ben the xij flyes wyth whyche ye shall angle to ye tought & grayllyng; and dubbe lyke as ye here me tell."

In her description she speaks of "The donne flye, another donne flye, the stone flye, the yelowe flye, the black louter, the donne cutte, the maure flye, the taudy flye, the waspe flye, the shell flye, and the drake flye" and specifies the month in which each of these flies is most effective. For instance: "In the begynnyng of Maye, a good flye, the body of roddyd wull & lappid abowte wyth blacke sylke; the wynges of the drake & of the redde capons hakyll."

Probably the first mention of the reel appeared in Barker's *Art of Angling*, published in London in 1651. This comment follows:

"Within two foot of the bottom of the rod there was a hole made for to put in a wind, to turn with a barrell to gather up his line, and loose at his pleasure."

And again, in the second edition of his work which appeared in 1657:

"You must have your winder within two feet of the bottom, to goe on your rod made in this manner, with a spring, that you may put it on as low as you please."

Izaak Walton, patron saint of angling, also referred to the forerunner of the reel in his *Compleat Angler*, second edition, London, 1655. On page 189, Chapter VII, under the caption "Observations of the Salmon, with Directions how to Fish for Him" is the following passage:

"Note also, that many use to fish for a Salmon with a ringe of wire on the top of their rod, through which the line may run to as great a length as is needful when he is hooked. And to that end, some use a wheel about the middle of their rod, or near their hand, which is to be observed better by seeing one of them than by a large demonstration of words."

There is reason to believe, however, that while Walton made this mention of a "wheel" in his famous treatise, he may never have used one in fishing. At least, one gains that impression in perusing his advices on how to angle.

The reel or winch of that period is referred to by Col. Robert Venables whose treatise *The Experienc'd Angler; or, Angling Improved* was published in London in 1662. He offered the following directions for its use in trolling:

"The next way of angling is with a troll for the Pike, which is very delightful; you may buy your troll ready made, therefore I shall not trouble myself to describe it, only let it have a winch to wind it withall \* \* \* and then you may certainly conclude he hath pouched your bait, and rangeth abroad no more; then with your troll wind up your line, till you have it almost straight; then with a sharp jerk hook him, and make your pleasure to your content. The Salmon takes the artificial fly very well; but you must use a troll, as for the Pike, or he, being a strong fish, will hazard your line, except you give him length."

That the gut leader may have been used in England as early as the 17th Century is evidenced by the following comment by Pepys in his diary (March 18, 1667):

"This day Mr. Caesar told me a pretty experiment of his angling with a minnikin, a gutt-string varnished over, which keeps it from swelling, and is beyond any hair for strength and smallness. The secret I like mightily."

First of the fishing authors, however, to mention silk-worm gut in a treatise was James Saunders whose *Compleat Fisherman* was published in London in 1724. A comment referring to silk-worm gut appeared in the *Field* on January 2, 1864. The writer had this to say:

"About three months since, Mr. Geo. Bowness, of Bellyard, shewed me advertisement of his grandfather's, date 1760, announcing that the new article, silk-worm gut, is to be had there. This pretty nearly fixes the date of its introduction into the tackle trade."

It is much easier and less costly to build straight boys than to reclaim crooked men.

It is easy to be the most important citizen in town. The hard part comes in finding a town small enough.



Carp fishing is drawing increasing popularity. Here's a catch from the Perkiomen Creek.



"FRIEND ANGLER—ARE YOU MISSING SOMETHING?"

(Continued from Page 7)

luck with a surface plug in our Bay Waters here and am interested in trying my luck with the one you mention. My favorite finish is the frog imitation. This is a lure that has to be worked very slowly, as is probably the case with your "pet." (Right!)

J. A. T. \* BLAWNOX—I have used nothing but plugs for 12 years with a lot of luck.

H. N. S. \* OAKMONT—This will be my first year fishing for bass in Pennsylvania and I am anxious to get off on the right foot with an artificial lure I know will interest the bass.

W. R. E. \* NANTICOKE—I wish to say that I am heartily in favor of more artificial lures and less live bait. We have found how scarce feed is at a lake close to home. The result is less pickerel than ever before and fewer bass.

W. E. S. \* SHARON—I'm sure your article will awaken the urge in lots of fishermen to use more artificials. I have not used live bait for myself and I find the pleasure of hooking a good fish and playing him increased a thousand times. I fish the Allegheny as much as I can. Last season I took one bass home, releasing all others. They have to be BIG for me to keep.

C. E. S. \* PITTSBURGH—I am a confirmed and "teetotal" artificial angler and have been advocating the preservation of natural fish food for years. I often feel like committing an act of violence when I see the reckless destruction of crayfish by still fishermen who get many while fishing the bottom. They gently lift the crab out and kill the unlucky crustacean instead of returning him to the water. Most of this destruction is due to ignorance of their value as a fish food, and only an educational program sponsored by someone like the ANGLER and articles such as yours will overcome it.

M. I. M. \* QUAKERTOWN—I have been a reader of the ANGLER for a number of years and am a fisherman 61 years YOUNG. Your article in the June issue was very interesting to me. I agree with your idea of conserving fish food, and right here I want to state that after a fishing trip, if I have any minnows or live bait left, I drive two or three miles to a fresh water stream and put them back in again. I have never had much success with plugs, maybe because I didn't use them much. It doesn't make much difference as I fish for the sport of it . . . so I've decided to try plugs and more fly fishing this year.

J. B. H. \* READING—The largest bass I ever caught, 7½ pounds, was taken on a large, yellowish surface plug, green-spotted with propellers at each end.

B. W. \* MURRYSVILLE—After reading your very interesting article on plug casting for bass I have decided to give artificial lures a good try out this season. I have always been a live bait fisherman but your article in the June ANGLER has convinced me there must be something in artificial bait fishing that I have missed.

AND THERE, Friend Angler, in that last quotation I received the inspiration for this article. I believe "B. W." has rolled up into



Ray Balliet, 6, of Shenandoah with a fine 18 inch brown trout he caught this year in Little Catawissa Creek, Schuylkill county.

a terse few words the sentiments of all the anglers who have written me. Maybe you, too, are beginning to think you are "missing something."

If you are now a live bait fisherman, it is not the idea to have you give up lures you know bring you consistent good luck. Not at all. But it is the frank purpose of this article, by quoting other anglers, to have you give artificials a thorough trial. Put a few in your box, and sometime when you feel the urge, give them a whirl. Put on a plug or a fly or a spinner or anything you happen to fancy. Pick out spots that look like hideouts of "lunker" bass and game fish. If you do, you'll get a lot of fun and enjoyment simply making the lure go through its paces. You'll soon discover you can cast artificials all day long just for the helluvit. Then . . . somewhere . . . someplace . . . a big one will hit and you'll have your hands full! From then on, my friend, it will be artificials for you!

In conclusion, I want to say I will be glad to hear your own personal sentiments on anything you have to say, and it would give me great pleasure to know that many more of you have decided that perhaps you, too, are

"missing something," and are turning to other than live bait to give the bass the break they deserve.

NOTE:—For those who desire to get in touch with Harris G. Breth relative to their experiences, his home address is Clearfield, Pa.

CLINTON SPORTSMEN IMPROVE HAMMERSLEY

Twenty-five small dams were placed in Hammersley Fork, Clinton county trout stream, by the crew of volunteer workers who responded to the appeal of the Western Clinton Sportsmen's Association sponsoring the stream-improvement project.

Several experienced foremen designed and supervised the placing of the logs and the anchoring of them with cables, rocks and other means.

The accomplishment of the work will contribute to the conservation of fish in the stream and improve fishing conditions in these popular waters.

After a day of hard work, refreshments were served and the day ended with the most of the workers learning the depths of one or other of the new dams.

Harry E. Weber, of Philipsburg, member of the Board of Fish Commissioners, visited the project and congratulated the association for its efforts in furthering conservation.

During the process of the work, approximately 50 water snakes were killed.

The association thanks merchants who contributed, those who donated trucks and the volunteers for making the event a success.

Movies and still pictures were taken by Photographer Samuel Weaver, of South Renovo.

NETTING COSTLY TO BERKS ANGLERS

One of the heaviest mass fines ever imposed on Berks county fishermen—a total of \$201.53, including costs—was collected from seven local anglers for violation of state fishing laws, according to Fish Warden William Wounderly, of Reading.

The fines and costs were assessed by Alderman Charles Lease and the seven fishermen pleaded guilty Wounderly said, to the specific charge of using an illegal device to catch game fish.

Those arrested by Special Wardens Clarence Bright and Brevard Lord included: Sylvester Watson, Paul Dietrich, John Schaeffer, G. Lloyd Keith, William R. Cox, Jr., and Robert Schaeffer, all of Wernersville, and William Rightmeyer, of Sinking Spring.

The seven were arrested at daybreak on June 10, on a creek near Brownsville where, according to the two wardens, they had a net strung across the stream in violation of the state laws. Several of them would stamp on the banks to drive the fish out of their hiding place, Wounderly reported, while another would wade upstream and drive the fish into the net.

According to Wounderly, the fishermen had caught several burlap bags full of fish, which they dumped back into the stream when a "lookout" warned them of the wardens' approach.



## SNAKE BITE AND ITS TREATMENT

By Felix Barchock

**I**NDIVIDUALS going into the woods or along streams should protect themselves from snake bites by wearing high-top shoes, leggings, or boots; for you never know when or where you will meet a rattlesnake or a copper head.

A large specimen of the timber rattlesnake which frequents the mountain regions of Pennsylvania will inject enough poison into a person to kill him within ten or twelve hours if he isn't given first aid and that takes into consideration the fact that the snake did not hit a large vein.

When a person is bitten the first thing to remember is that calmness is of utmost importance. Next, a ligature of some sort must be bound a moderate distance above the limb-bitten part so as to prevent the poison spreading into the upper part of the limb.

The ligature may consist of a strip of cloth, a large handkerchief, or even a piece of heavy cord. A rubber ligature is really best. It is necessary to have the ligature tight enough so as to have a stoppage of circulation. Even a moderate pressure tends to localize the area of poisoning.

After making sure that the spreading of the poison is being retarded, the fang-made wounds should then be taken care of by making an incision across them so as to form a cross. The depth of this incision should be three-eighths of an inch for a large rattlesnake and for copperheads a quarter of an inch. If no cupping device is at hand, the drainage should be induced by sucking the wound. There is no danger from this if the lips and mouth are free from cuts or wounds.

The mechanical drawing away of the poison blood in the vicinity of the wounds is of the greatest importance. Every thought should be centered in making this a measure as efficacious as possible and it should be repeated again and again during which time the ligature must be



Ralph Wilson, Game Commission employee, fly fishing for trout in Fishing Creek, Columbia county.

slacked about every ten minutes so as to re-establish the blood circulation. It has been definitely established that the circulation of the major bulk of the venom injected into the system is comparatively slow-moving, that much of it lingers in the vicinity of the wound.

It must be remembered too, that the incision should be made carefully so as not to injure the delicate skin covering a bone or a cut be made into a blood vessel.

The venom injected and the deeper the fang-made wound, the more poison is naturally being injected into the individual but the immediate sucking which takes place appears to be nature's provision for retarding the absorbing of the lethal fluid. Another provision which nature seems to have made is the immediate rush of serum and lymph to the wound so as to dilute the lethal fluid with each of the first two named fluids in advance of the lethal fluid being absorbed. The serum and lymph assist in mechanical drainage. In fact they are later liberally exuded from the drainage incisions. The use of the ligature should not be continued for much more than one-half hour and as mentioned before, the ligature should be slackened every ten minutes but, there should be intervals of mechanical suction for several hours after the ligature has been removed.

There is now on the market today a kit containing the necessary equipment for the treatment of snake bites which every sportsman should carry when he is going into the woods or along streams.

This kit should consist of the following:

Several single edged safety razor blades.

One small bulb and cupping glass for flat surfaces.

One additional attachment for round surfaces (as a finger).

One roll of rubber ligature.

One small roll of bandage.

Two tubes anti-venomous serum (good for two years).

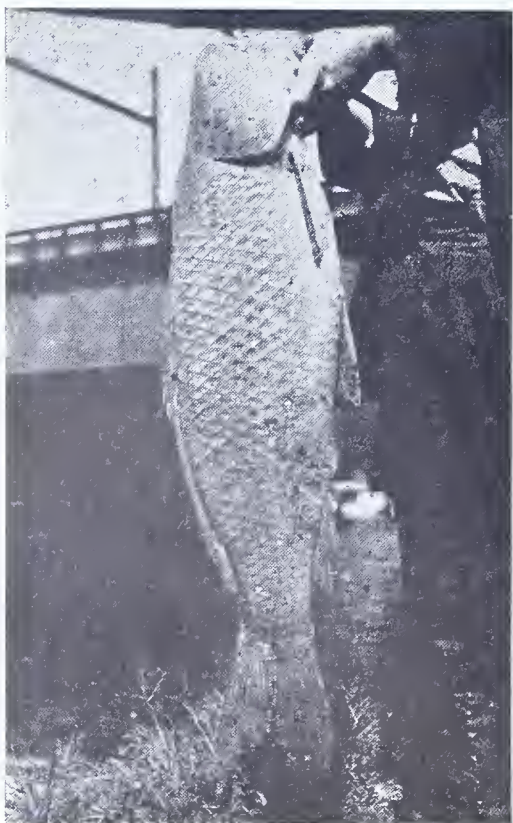
Whiskey is useless as a cure although a moderate dose of medical brandy does no harm and may greatly relieve the mind during a situation which may not be nearly as dangerous as it seems.

The cupping for flat surfaces should be of glass and the other for rounded surfaces should be of metal with a narrow oval opening so as to fit against the rounded surface of a finger or other rounded part. It might be well to note here that it is important that the first incision made should be rather short and cruciform in design so as not to extend beyond the suction surface of the device and admit any air.

After the immediate measures for eliminating as much poison as possible have been attended to the serum, if available, should be administered. If any assistance is at hand it is better, of course, to inject the serum immediately after being bitten. The modern method for the general public to acquire this serum is by getting loaded hypodermic syringes and it is only necessary to attach the needle to the handle of the syringe. The serum is not injected near the vicinity of the bite but injected under the skin between the shoulder blades or on the abdomen (known as subcutaneous injection.) In this way the serum is quickly taken by the general circulation. The entire contents of a tube should be injected for an ordinary bite but if symptoms are particularly grave, two or more tubes may be necessary.

Intra-venous injection is advisable if the fangs have punctured a blood vessel but this should be done only under the direction of a physician who has actually diagnosed the patient's condition.

It is well to wash the incision with a mild solution of permanganate crystals in pure water



A carp of this size is capable of a dogged, heavy battle.



(enough to produce a pale amethyst hue) as this fluid will neutralize by oxidation what venom it may reach. The use of strong solution of permanganate or potassium, however, is not only unwise but dangerous, as there is much tissue destruction by this chemical when used in large amounts. It is utter rashness to rub pure crystals of permanganate on a wound; moreover, such a wound should never be cauterized. Nothing should be more foreign for the treatment of snake bite than this practice which actually seals the destructive poison within the tissue.

As not only the immediate area of the wound is much weakened and subject to bacterial invasion as well as a considerable portion of the neighboring tissue, and the bite itself is sometimes attended by specific infection from germs coming from the snake's mouth, the wounds should be covered with a heavy layer of wet dressing and kept saturated with a mild anti-septic solution. This not only retards or prevents infection but induces copious drainage through a discharge of quantities of serum fluids which always appear to rush to such a poisoned area.

Unless the person bitten by a snake is in a remote district and far from the aid of a doctor an effort should be made to contact one skilled to carry through all but the preliminary measures of treatment.

**A BITE FROM A POISONOUS SERPENT DEVELOPS RAPID SYMPTOMS AS:** A burning pain is apparent within three to five minutes after being bitten, and within ten minutes there is a distinct swelling. This rapidly increases and is usually followed within half an hour by much perspiration and there may be reflex vomiting.

By this time, of course, treatment should have been given and if serum is at hand its injection may prevent the more alarming symptoms.

A harmless serpent may produce distinct wounds from its recurved teeth and as only a few teeth may cause lacerations (which excites the imagination of a nervous person) one may quickly classify these as two-fang punctures. If nothing happens within ten minutes following the bite you may be sure the snake was harmless.

#### Process of Making Serum

Snake-bite serum is made by injecting into horses, small doses of snake venom and continuing the injection of these horses with this serum from time to time during a number of months until the animals have developed a high degree of immunity. Blood is then obtained from them and is subjected to a number of processes. The red is separated from the serum portion and the latter is filtrated.

Simply explaining the reaction of this serum when it is injected into the individual who has been bitten by a dangerous snake, the poison which the reptile injected becomes neutralized.

Serum may be injected immediately after a bite or up to the time the victim has approached a condition of collapse. Then from this time on it is too late to inject the serum as the circulation has stopped to such an extent that the blood cannot take up the serum to neutralize the poison.

## "THE SUMMIT OF THE YEARS"

The longer I live the more my mind dwells upon the beauty and the wonder of the world. I hardly know which feeling leads, wonderment or admiration. I have loved the feel of the grass under my feet, and the sound of the running streams by my side. The hum of the wind in the tree-tops has always been good music to me, and the face of the fields has often comforted me more than the faces of men. I am in love with this world; by my construction I have nestled lovingly in it. It has been home. It has been my point of outlook into the uni-

verse. I have not bruised myself against it, not tried to use it ignobly. I have tilled its soil, I have gathered its harvests, I have waited upon its seasons, and always have I reaped what I have sown. While I delved I did not lose sight of the sky overhead. While I gathered its bread and meat for my body, I did not neglect to gather its bread and meat for my soul. I have climbed its mountains, roamed its forests, sailed its waters, crossed its deserts, felt the sting of its frosts, the oppression of its heats, the drench of its rains, the fury of its winds, and always have beauty and joy waited upon my goings and comings.—*John Burroughs.*



Formation of good pools below water-jack type dams is an important stream improvement feature in trout waters.





Children's fishing projects are increasingly popular. This scene was snapped at Allentown.

## OPPOSES FISHING LICENSE INCREASE

Writes E. L. King, ardent Harrisburg angler:

"I have just read the article in the June ANGLER with regard to boosting the license fees as solution to trout situation, this in response to your article 'This Modern Trout Fishing.'"

"Just how serious is the situation anyway with regard to the supply of trout? During the past two weeks, in low clear water, I have enjoyed the best trout fishing of my life within a few miles of Harrisburg.

"True there were a lot of fellows on the stream complaining, but those fellows were just not meeting conditions. This is long line, light leader and moderately skillful casting dry fly time.

"There are literally thousands of fine trout within a few miles of our city waiting on the fellow able to fool them. Anyone thinking otherwise need only equip himself with a pair of polaroid glasses and then cautiously investigate spots trout are likely to lie. Unfortunately so many anglers do not seem to recognize these spots—as one oldtimer once put it 'they fish where they ought to be wading and wade where they ought to fish.'"

"But to get back to boosting license fees, I do not agree with the advisability of a major increase in the fee or a reduction in the age limit to 14 years. Such drastic action as increasing the fee to \$5.00 would in effect rule thousands of fishermen off the streams.

"After all there is a depression in this country and fishing is a poor man's pastime. We should not reserve this fine sport to only those who can produce \$5.00. Happily it would not work any personal hardship to myself—but I know it would to thousands of others.

"The increasing army of fishermen can be viewed only as an asset, never a liability. We need each and every one actively interested in better fishing, pollution eradication and vermin control; with ever a watchful eye on utterly selfish or poorly advised fishing and stream legislation. Organized fishermen in large numbers guarantee good fishing and we should be increasingly wary of any hasty action which may threaten to lessen the ranks.

"Likewise I can not agree with the proposal to lop July off the trout fishing calendar. During July, the fellow who fishes for the table is generally on a bass stream. The flyman working the trout streams is usually the fellow who carefully releases each small or medium size fish.

"Rather POSTPONE opening day until

May 15th. Postponing opening day until May 15th with more likely normal depth and clearer water, not to mention nicer weather, should make the taking of trout just a trifle more sporting and should lessen the early season protests of farmers due to careless trampling over soft spongy tillable soil. Personally if I were a farmer, I would wish little fishing on my property—adjacent to cultivated land—until May 1st at least.

"July offers the test of skill to the fly artist—the wormer and the minnow fisherman are licked to be sure by low clear water. But aren't all the cards stacked up for the wormer and minnow man at the present early April opening, in fact all the way from April 15th to May 15th frequently, with high discolored water, cold weather, no hatches, and streams overcrowded with hatchery reared hand-fed trout? Although we sing of trout as the prince of game fish, many of our finest specimens are taken on a stiff pole, a hunk of cuttyhunk, and a worm or dead minnow, yanked mercilessly out on the bank without a chance to run or fight.

"Perhaps my experience is too limited to be taken seriously—possibly my theories are as doubtful as most fish calendars. But I still insist vehemently if you like, that July is the finest fly fishing month of the year. True there are what some may term natural disadvantages, low clear water and hot weather, but are not these hindrances far outweighed, as viewed by the dyed-in-the-wool-flyman, by less disturbance and running about in and along the stream on the part of good-natured, well-intending, and unwise fisherman, a condition so rampant during the earlier part of the season?

"And just how disadvantageous is low clear water? Sometimes, if not too low, I think it an asset. It is not necessary to wait on a 'rise' to take fish with dry flies. A good dry flyman will 'raise' the fish himself if not in too deep water—quite regularly.

"Make it illegal to kill during July if you must, but do not make trout fishing unlawful. Give the fellow who prides skill and dexterity above meat his inning too—you'll probably find

that same fellow willing to return all fish unharmed just for the sake of the thrill a fighting brown or rainbow offers at the end of light tackle. But in all fairness to the good sportsmanship of the July flyman could we employ such restrictions—especially in view of the manner in which 6 to 8 inch fish are mercilessly hounded and hunted down in April and early May?

"But to get back to supply and demand. As I view it what we need most is not more 6 to 8 inch hatchery stocking, but more fishable water or space to accommodate the growing army of anglers. Increasing hatchery output, tho probably desirable, will not relieve human congestion, or shortage of fishing space.

"Would not a reduction of the creel limit with a closer system of inspection and enforcement enable us to offer more fishing space to each individual? I would suggest that the daily creel limit be reduced to not more than 5 fish at once—and the legal length increased immediately to 8 inches, the latter a compromise only to accommodate brookies in some of our smaller streams. Any stream producing less than 8 inch fish might well be set aside as a nursery water.

"Any fisherman with 5 trout 8 inches long should call it a day. When an angler elects to kill 5 trout, it is time for him to get off and surrender his fishing space to another. If an individual wants to keep on fishing all day, then let him return the fish to the water—unharmed—let him be compensated for the courtesy and thoughtfulness by the pleasure of continuing the sport for a longer length of time. Present legislation is not fully appreciative of the good sportsman who returns all but a few large fish to the water. A full creel should immediately legalize further fishing that day, despite possible willingness of anglers to return all after 5 to the stream.

"Pennsylvania, even at \$5.00 per license, simply can not stock enough trout to make these fish a source of food. In the article 'This Modern Trout Fishing' there is an interesting hypothesis with regard to approximately 100 feet of stream being available



Tunkhannock Creek, one of Pennsylvania's major trout waters.



if each of Pennsylvania's 400,000 anglers went fishing on a given day at a given time. Now let us draw another interesting parallel. Some trout fishermen probably visit the streams fifty times in one season; a few others only three or four times. Both are extreme perhaps; the average man must run somewhere around fifteen times per license on the water. Now suppose 200,000 fishermen, averaging fifteen times on the stream would expect to catch 10 trout each time out—a matter of some 30,000,000 trout. Also if we were to reduce the creel limit, would it not tend to discourage the killing of small fish? Wouldn't it encourage the return to the water many babies in the hope of picking up a larger specimen or two later? I simply can not appreciate the spirit of killing 6 to 8 inch trout. As long as we raise thousands upon thousands of trout, then dump them into the streams to be taken out 10 a day down to 6 inches, we'll never have a goodly supply of large fish. And we all know how frantically and mercilessly 6 to 8 inch fish are hunted down during the first part of the season—a dangerous pest is not more heartlessly exterminated.

"I think the proposal to close trout water to all but trout fishing is most commendable. And why not restrict certain predominantly bass water likewise? Suckers ordinarily congregate at certain spots—why not make only such likely locations available to sucker fishing and restrict the remainder of the stream to game fish? Somehow or other I do not like to see catfish, sunfish and rock bass fishermen sitting in the middle of a river in a boat during April, May and June.

"And while discussing restricted areas, who is there but must admit the taking of live bait from game fish water, both trout and bass, is creating an acute forage situation and threatens to materially reduce the number and size of the finny population? The time has come when more regulatory action in the taking of live bait is imperative. At present there may be no necessity for the wholesale prohibition of all live bait—everywhere, but there is an immediate need for legally outlawing the removal of live bait from water designated and restricted to trout and bass fishing. Literally millions of minnows are being killed in trout fishing alone and most of them are taken from trout and bass water. Then with the coming of bass season, more millions are destroyed. Looks like we're out



Log dams are popular stream improvement devices for Pennsylvania trout waters.

to exterminate those "dern pests"—trout and bass—either by catching and eating 'em or by robbing 'em of their food with slow starvation and cannibalism in the offing.

"I would urge the Commonwealth to set aside all streams or portions thereof stocked with either trout or bass as game fish preserves—strictly prohibiting all non-seasonal angling and absolutely outlawing the taking of bait fish, crabs, helgramites and other living things from such waters. The same rule should apply to all tributary water, not designed as "game" fish water, to at least the distance of a quarter to one-half mile from the restricted stream.

"The use of artificials must be encouraged more and more in our intensely fished water. If the campaign of education is not bearing fruit, then fishermen in general must reconcile themselves to the legal conservation of live forage. It is suicide, when we know that supply depends upon forage, to continue robbing game fish of their food. Bait fishermen will have to fall in step with the user of artificials—secure the lure somewhere other than on game fish water—it is not fair to expect the stream to furnish both the fish and bait free.

"In conclusion as I see it what we need is less killing and more generally practiced conservation; more stream space with less human congestion; more "Fishing for sporting size fish and a sportsman's creel"; more fishing for fun and less meat".

## WOMEN ANGLERS

Fishing has been looked upon, throughout the past, as a man's sport. (Some have called it a lazy man's sport.) When Izaak Walton wrote in praise of fishing and made himself the patron saint of fishermen, he didn't recommend it as a sport for women. Yet women, in increasing numbers, are taking to the art of angling, and in frequent instances are showing up the men at their own game. The Consolidated Sportsmen of Lycoming County found women among the winners of prizes offered for the largest fish of designated species taken last year, and women are among those who have entered fish in competition this year.

How women have challenged men to look to their laurels in taking fish is dramatically illustrated by a report coming from Cat Cay, in the Bahamas, famous resort of those who go after big game fish. Mrs. Henry Sears, of Greenwich, Conn., came into Cat Cay with a 730-pound blue marlin and with a new world's record for the largest fish of this species taken with rod and line. The previous record held by a woman was for a fish of 560 pounds, while Tommy Shevlin had held the previous world record with one of 636 pounds.

Few women can go in for the sport of big game fishing. For one thing, it is too expensive. But here in Pennsylvania, women who like to fish can indulge their taste for the sport without such expense. More and more of them are going in for trout fishing and some of them can cast a fly with a skill matching that of any of the men, while others, sticking to bait fishing and not agreeing that the lowly worm is to be despised, occasionally catch trout which arouse the envy of the male purist who won't use anything but a fly. Bass fishing attracts more women than trout fishing, however. Lots of Pennsylvania women are looking forward with eager anticipation to the opening of the bass season July 1. When it comes, they will be found fishing on equal terms with men. Some states set aside special waters to which women have exclusive privilege. It is to the credit of Pennsylvania's women anglers that they haven't asked such special consideration.—Editorial—*Williamsport Sun*.



Game Commission Photo

An unusual photo of the head of a white egret, a wading bird extremely adept in taking fish.





## HERE AND THERE IN ANGLERDOM



Writes Kenneth F. Lockwood, Editor of the livewire column "Out in the Open" in the Neward (N. J.) *Evening News*: "I note in Charles M. Wetzel's article on wet flies in your May issue a reference to the Cahill pattern as having been named after a Dublin fly tyer. It was of particular interest to me because some years ago I met in Connecticut a former New York theatre man, now dead, whose name was Cahill and who claimed his father, then a resident of your own Pike county, first tied the pattern. I'd like to say how much I find to enjoy in the PENNSYLVANIA ANGLER. It's all good."

Lehigh county sportsmen rallied nobly to the conservation cause in late June, when fish in the upper Jordan Creek were threatened with destruction as the stream level dropped. Under the direction of Warden C. Joel Young, over 3,000 fish were removed from pools in which the water level was receding rapidly and restocked in the same stream near Helfrich spring and in the Fogelsville Dam on Hassen Creek. Assisting Young in the work were George Petrie, Kenneth Kline, Kenneth Hart, Clark Kichline, "Pop" Fisher and Samuel Bretz.

Two Hazelton anglers, Earl Alexander and Harry Riden were looking forward to some great snapping turtle soup early in July. They caught a 30 pound snapper in the Susquehanna River near Sunbury.

Low water also proved threatening to fish in a number of streams in Columbia and Lower Luzerne county. Sportsmen in Berwick and other upriver communities organized for fish rescue work, comes word from Warden Russell Womelsdorf of Kingston.

Plum Run in Clinton county yielded a fine brown trout to the fishing skill of Mrs. Hartman Herr of Lock Haven. The brownie, measuring 19 inches in length, tipped the scales at 2 pounds 12 ounces, according to Warden George Cross of Hammersley Fork.

Frank Talasz of East Stroudsburg scored a catch of fine brown trout on Paradise Creek, Monroe county, on April 25, according to Warden Harry Custard. Dry fly accounted for the creel, and according to Frank, this, his first trip astream, was really the first favorable dry fly day of the season.

Russell Parsons of Shamokin had an unusual experience while trouting this year, according to Warden Harry Carl of Elysburg. It seems that Russ hooked into a trout that took his fly. Sometime later, he did the fish life in that stream a good turn by killing a watersnake. The snake, according to Russ, had caught the trout which had taken his fly.



Mrs. George Gottfried, Reading, caught this 21 inch 3½ pound brown trout in Lake Wallenpaupack.

Although handicapped by muddy water in many of the streams in the vicinity of Harrisburg, a number of Capitol City anglers made good catches of bass during the early part of the season, according to Warden Frank Sanda of Steelton. The main Susquehanna River has furnished to date by far the best fishing in this area in spite of its roily condition much of the time. Topping smallmouth bass taken from the river was the catch of Tom Cully, Harrisburg. Fishing minnow he caught a smallmouth 20¾ inches in length and weighing 3 pounds 9 ounces in addition to another smallmouth 15 inches in length. Ira Bowman, Steelton, caught 6 smallmouths in the river measuring from 10 to 13 inches in length; John Zeager, Rheams, two bass, a 10 inch smallmouth and a 13 inch largemouth; Bob Blyer, Highspire, three smallmouths all around 10 inches. Maurice Koenig, Harrisburg, took 4 smallmouth bass in Sherman's Creek all over 12 inches in length, and Bennett Scott, Harrisburg, three smallmouths in Sherman's Creek, all around the 10 inch mark.

Nevin Sherlock, Mifflintown, acting chief of the Dog Law Division in the Department of Agriculture, an ardent bass fisherman, relied on light casting lures to take three nice smallmouth bass in Tuscarora Creek, Juniata county, on opening day. Since then, Nev has caught a number of bass well over legal size and released 'em all. His motto is "Let 'Em Go and Watch 'Em Grow."

A number of nice walleyed pike have been taken in the main Susquehanna to date. Plugging accounted for a fine walleye for Albert Dunn of Lemoyne, Cumberland county. His catch measured 27½ inches in length and tipped the scales at 5 pounds 8 ounces.

Spring Creek in Center County yielded a fine catch of trout to A. A. Beech of Vandergrift on June 5. His catch comprised three rainbow trout, 14, 16 and 21¾ inches in length respectively. The largest trout, a beautifully marked fish, tipped the scales at 4 pounds even.

The Brodhead Creek in Monroe county furnished excellent early season trout fishing, according to Warden Harry Custard of East Stroudsburg. One of the nicest trout taken on first day was that landed by Joe Martino who scored with a 19 inch brown.





"Fishing all day and not even a bite. I'm going to change worms; I don't believe this one has any personality."



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# PENNSYLVANIA ANGLER



CALICO BASS

SEPTEMBER 1939

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## EDITORIAL

### SUNFISH PROVIDE BASS FORAGE

**I**t is a generally accepted fact that water areas will not produce good angling unless various kinds of fish inhabit the area. This is so because the association of plants and animals in our waters exists in a definite and necessary chain of relationships. This chain of relationship consists of the larger fishes eating the smaller fishes, the smaller fishes eat crustacea, insects and their larvae. The crustacea, insects and larvae feed largely upon algae, minute plants and animal life. The productivity of our waters insofar as the fish that the anglers desire are concerned, will largely depend upon the number of smaller fishes found in the area. The number of small fish present will be influenced by the amount of organic substances in the waters, together with the number and kind of fish that inhabit the water.

In the Board's stocking program, with special reference to the Black Bass and Chain Pickerel, considerable thought has been given to the problem of having available small fish for their stable food supply. Angling for Bass and Pickerel in most cases, can not be greatly improved by stocking with these species, without giving consideration to the increase of food fishes for these varieties. With this thought in view as well as helping to provide better fishing for the less gamy varieties, Bass and Pickerel waters are regularly stocked with Bream, Catfish and Minnows. Conditions are being constantly studied on Bass and Pickerel waters that are giving good fishing, as well as those that are not producing good results. Other factors being fairly equal it has been observed that in most instances good fishing has been associated with an abundance of Bream or Sunfish. This being the case, it is natural to assume that this fish plays an important part in the food chain of these game fish.

If this assumption is correct the stocking of Bream in many of our waters is serving a dual purpose. That is, this fish is providing food for other varieties, as well as giving pleasure to thousands who enjoy the thrill of landing these gamy fighters.

In Pennsylvania waters there are found a number of different kinds of Sunfish. They range from the large growing Blue-Gills to the Pigmy Sunfish, that rarely attains a length of over two inches. For a number of years the Board's research agents have been experimenting with several of the most desirable species in conjunction with the bass culture. This work has now progressed to a point where it is common hatchery practice to produce Sunfish in the bass hatching ponds. The presence of the Adult Sunfish in no way interferes with the reproduction process of the Bass. But in turn, the young Sunfish furnish food for any small bass that escape when the young are transferred to the nursery ponds, as well as producing sufficient of their own kind to fill up the Sunfish nursery pools. In addition to this, ponds that heretofore were used as brood Sunfish areas can now be used for other purposes.

The fact that the Sunfish are not detrimental in the hatchery Bass brood ponds follows that they should not interfere with the parental action of the Bass in a state of nature. This is not the case with many so-called forage fishes. And in addition, most forage fishes serve only the purpose of food for game fish while the Sunfish serves a dual purpose.

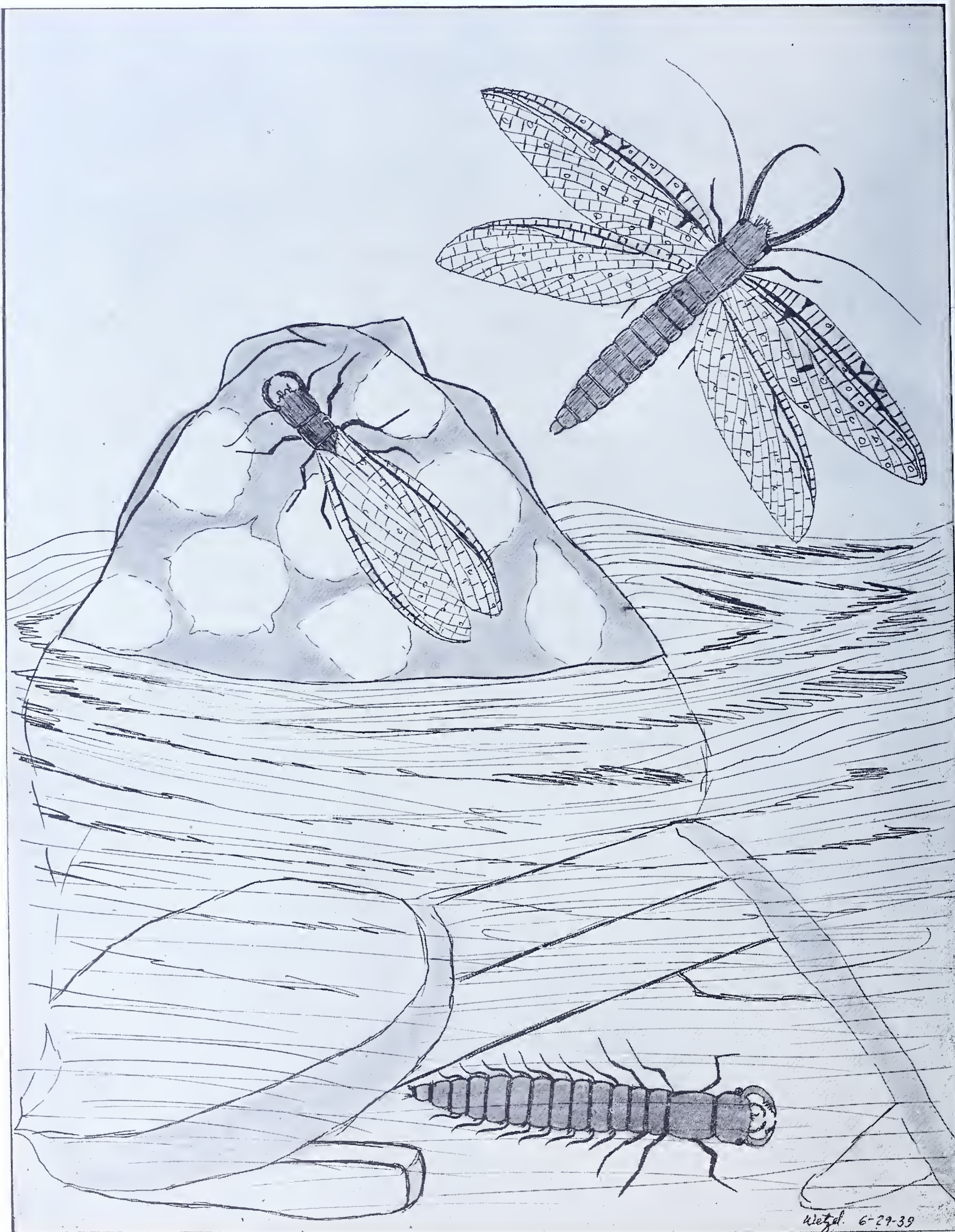
Of the several varieties experimented with the Blue-Gill, called Bream on all of the distribution records, was selected as the logical fish to grow and stock. This fish grows to a size of one-half pound or more, satisfies those who enjoy angling with worms, as well as those who fish with fly and light tackle.

From the standpoint of forage it is more fecund than many of the other Sunfishes, and has a long extended spawning period. The extended spawning period has an advantage of placing in the waters a crop of food varying greatly in size, so that game fish of almost any age or size have forage available. The peak of the spawning takes place at the same time as that of the smallmouthed and largemouthed Black Bass, and this hatch is available for the bass of the same age.

In the past the majority of the bream have been stocked in the fall of the year when they have attained an average length of three-fourths of an inch. Many of these are destroyed by other fish before they can reproduce. This procedure is not entirely satisfactory in creating a dependable supply of forage and does not supply the full demand placed upon these fish by those who angle for them. As the hatchery construction program expands the Board intends to retain the Bream at the hatcheries until the fall preceding their attainment of sexual maturity. Stock will not be made until after the peak of the season's fishing and the crop will be present to reproduce the following spring, bringing forth crops of young for forage purposes and the parents will increase the anglers' catch during the summer months.

  
Commissioner of Fisheries





Wetzel. 6-29-39



# THE VANISHING AMERICAN

By CHAS. M. WETZEL

ONE of the natural bass foods found in our streams today is the helgramite, larva of the Dobson Fly. This vicious looking insect is found under stones in the riffles, and in different localities it is known under such names as the Dobson, Conniption Bug, Clipper, Hell Devil, Hell Diver, and various others. On the North Branch of the Susquehanna, they are commonly known as clippers, and numerous signs advertising their sale can be seen throughout the region.

The helgramite lives about three years in the larva stage and can be found at almost any season, although in the winter they burrow beneath the stream bed. They are black in color and are equipped with strong predatory jaws or mandibles. Care must be exercised in handling them, for if squeezed or treated roughly, they are capable of inflicting a sharp bite. Probably the best way is to grasp them by the collar or prothorax, this position rendering them harmless. During this larval period, one can find them in various sizes, ranging up to three inches in length.

When about half grown they are hard to distinguish from the larvae of the Fish Fly. The latter insect is a close relative of theirs and is often found in the same stream. Probably the only sure way to tell them apart is to look for the fine hairy gills at the base of the lateral filaments. Helgramites have them, but they are absent in the Fish Fly larvae.

After living in the riffles for approximately three years, the larva leaves the water around the month of June, and makes a cell under a stone on the bank of the stream. Here it sheds a skin, becoming pale colored and soft, but which gradually grows darker as the pupal period progresses. The pupal period lasts about two weeks, and after this, the adult insect, with wings fully formed, takes to the air.

The adult fly is dark brown in color, and has two pair of wings, the fore pair the largest. The male is equipped with a pair of long tusk-like mandibles which are used to hold the female while mating. Their life in the adult stage is very short—about three or four days—and like so many other aquatic insects, their main mission in life is reproduction. One seldom notices them during the daytime, but at night they are commonly encountered. Lights seem to attract them, and I recall more than one occasion many years ago, while out spearing, when they almost scared us kids to death as they fluttered and banged around our light.

The female insect deposits her eggs on stones, brush or some other object so that the larvae when hatched fall directly into the water. The eggs are laid in a chalky white mass, and measure from a half-inch to an inch or more in diameter. When I was a boy, on the Middle Creek, so many laid

their eggs on the old red bridge that it almost looked as if it had been whitewashed.

Years ago the stream bed was literally alive with these creatures and five minutes work on the riffles would supply us with enough helgramites for the entire day's fishing. We carried them around in a tin box partly filled with damp rotten wood, and very few of them died. In fact, I have kept them throughout the summer, by placing them in a tub lined with wet grape and alder leaves. Naturally the tub had to be kept in a cool dark place, and standing water eliminated to keep them from drowning.

Everyone used the same method in fastening them on the hook, that is, the point was inserted underneath the collar, working from the front towards the rear. This method did not seem to injure the helgramite any, a most desirable asset, since it was practically impossible to catch bass on a dead bait. In general, only one helgramite was used, although, on the Kettle Creek, some of the old timers used two and three. John Calhoun, our old camp cook, was one of the latter. He always fished with a long cane pole, equipped with a stout line and three helgramites. One day in the "Cannanadian Hole" above Trout Run, he brought out three smallmouth bass at one time—none of the fish being under twelve inches long; Every now and then, while in the Kettle Creek country, I call on John who never fails to recall the incident.

"When I pulled those fish out," he said, "your Dad's eyes stuck out so far, you could have knocked 'em off with a stick. Remember?"

Indeed I did, and it was an experience I shall never forget. Those were the days when there were few fishermen, creeks were overflowing, bass were plentiful, and the rocks in the riffles were swarming with helgramites. At that time it was impossible to turn over any flat stone, without seeing a few of them scurrying toward the underside away from the light. Everyone used them for bait, and in time the most accessible riffles were completely cleaned out.

Then began the search for the more remote spots. Helgramites were still obtainable, only one had to search harder for them. In time these riffles were also depopulated, yet there continued such a steady demand for them that almost overnight the commercial bait men appeared on the scene. These boys were good! They did not stoop to overturn stones and pick them off the bottom, but they worked in crews. Immediately below a riffle, they would stretch a long fine mesh seine. Then three or four equipped with rakes and hoes would start raking up the stream bed.

The helgramites as they were dislodged from the rocks, curled up in a black ball and floated downstream until they encountered the net on which they clung. As I mentioned, these boys knew how to catch them—only too well! Riffles that were presumably worked out were again worked and re-worked, until finally all of them were caught. After one stream was played out,

operations were shifted to another locality, with the consequence that, throughout the state, all the major streams bore the brunt of this vicious circle.

And now, at the day of reckoning, all of us are filled with dire forebodings, and wondering if the helgramite can stage a comeback. It is regrettable and unfortunate, but this insect is apparently doomed, due to the heavy inroads made by the commercial bait men and the live bait fishermen. Like the Lamprey Eel, it is another vanishing American, and unless some drastic measures are soon taken, there can be no doubt that in a few more years, it will be completely exterminated.

It has been claimed that this downward cycle has already progressed too far for the helgramite ever to return to its former numbers, but this is a debatable question. Happily, within the past few years, there seems to be a temporary halt in this destruction—at least the helgramite is holding its own,—and for this we are indebted to the fly fishers who, time and again, have demonstrated that the most successful way of taking bass is with the fly and spinner.

Fly fishing is the gentlemanly way of catching fish. There is something fascinating about the mere thought of it, something that grips the imagination, and awakens secret longings in the breast of even the most dyed-in-the-wool bait fisherman. And the beauty of it is that it is within the reach of everyone. Fly fishing is not difficult. If any doubts exist in your mind as to your ability to learn the game, take a trip to the Spring Creek Project, the Fishermen's Paradise, during trout season. There you can always see in action some of the finest fly fishermen in the country. By all means take your rod along. There are many other dubs just like you, only some of them, after having had one or two hours experience, are hard to recognize. Keep your eyes open, and carefully watch the fishermen about you. Some of these boys are clever, and can cast a fly clear across the creek with no apparent effort. When you have located one of these smooth-working artists, tag along, and observe how it is done. If the chap appears affable, and receptive to overtures, engage him in conversation; tell him that you are just learning the game, and the chances are that he will take an interest in you and point out various wrinkles that will prove invaluable.

A bait fisherman probably has a harder time learning to cast a fly than the novice who has never tried it before. Through experience, he has learned to pitch or throw his bait, so that it would not be snapped off. Naturally the cast has to be executed very gingerly. This is the biggest obstacle he must overcome. In short, the fly must not be pitched or thrown, but he must learn to cast it with considerable force. Anyone can learn the game, so persevere, and keep trying, for fly fishing is putting into effect one of the soundest principles of conservation, that of conserving our bass forage. After the principles are once mastered, and you

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Shown in the illustration are a female adult Dobson Fly (on rock with egg patches), a male adult Dobson Fly (wings extended) and the larva, helgramite (below).



# QUILLBUGS

By WILLIAM R. WALTON

**P**OOR fish!—Oh! Yeah? Any angler who has met educated bass or trout knows well that yon squawk of derision signifying stupidity in the ninth degree, is the bunk.

After 40 years of catching and trying to catch game fish—mostly the latter—it is the writer's firm conviction that most if not all of the tales and theories about defective vision, and general all-around boneheadedness in these fish must have originated with people who know a heck of a lot of things that just ain't so!

I am speaking now of the erudite, college bred fish which inhabit our Pennsylvania waters and not the illiterate, backwoods rannies spoken of by Donald Hough of Jackson Hole, Wyoming, in the August, 1939, issue of the American Magazine, where, he says that "fishes can't even read or write", and were caught on plugs made of radishes and carrots!

Actuated by the thesis above announced, I have devoted leisure hours for lo these many moons, to the origination of certain fly rod lures, which, under favorable conditions (maugre obstreperous barometers and like bogeys) can be relied upon to fool some of the fish some of the time.

Among these fruits of imagination are the artificial insects and other phantasms herein described. These I have called Quillbugs because they are draped over body foundations composed of the butt ends of the quills of flight feathers or primaries of the domestic goose.

Perhaps I should explain that one of the really important members of my family is an old Embden gander, important because he constitutes our private police department. Be it day or night, no panhandler, stumblebum, filcher or drawlatch may invade our domain but he be denounced with raucous honking curses that would make old Sten-tor's shouts seem a mere whisper.

I have called this bird "old" when in truth, he is but 20, and therefore just in his prime. As a lad I knew a similar bird who was said to be 46—and what wonderful brake linings he would have made!

Well, of course, once a year this youthful bird of ours molts his primaries and so it occurred to me while gathering these one day that these big quills could be fashioned into floating fly rod lures.

The artifacts herein described and illustrated are the end results of much head scratching and cogitation but I am sure that after their anatomy and construction have been exposed any fellow sufferer from flyitis who has trained his fingers to make a passable artificial will be enabled to duplicate them.

Bug fishing for the sunfishes, including largemouth and smallmouth bass, affords a thrilling phase of angling paralleled only by dry fly fishing for trout. The bug is cast preferably where a fish is seen rising and is then allowed to float undisturbed for 15 or more seconds, when it is gently twitched. When a strike is provoked this often is quite violent enough to carry the fish completely out of the water.

As instantaneous action is necessary on the part of the angler in order to hook the fish, the light leader should be well greased so as to float it and thus to avoid the underwater loop that otherwise would form during the waiting period. When such a loop forms, the instant lost in taking up the slack in it often is sufficient to permit the rejection of the lure.

Although the hair-bodied bugs are excellent in some respects, notably in their soft yielding bodies that aid in hanging the fish, they have some inherent faults. Among these are the difficulty with which they are cast in the wind and their tendency to absorb water after a few casts thus causing them to become less buoyant. Some patterns as the hair frogs have the annoying habit of alighting on their backs. As no living frog ever for an instant remains in such a position, the fish are then hep to the phony and ostracise it pronto. Remember that all frogs possess light colored bellies, and do not purchase one that is colored otherwise.

In the case of the hard bodied fly rod bugs, the principal mechanical difficulty encountered is the selection of a body material that will combine maximum buoyancy with minimum weight and bulk. These qualities are found in a body made of the butt end of a goose quill. When both ends of the butt section of such a quill are plugged with a waterproof material, it forms a buoyant air cell of suitable shape and size to be easily fastened to the shank of a small hook.

When a bug thus constructed falls upon the surface of the water, no matter in what position it may alight, because of its cylindrical shape it tends to turn hook down, ready for business. It absorbs little or no water and is more readily cast against the wind than are most other kinds of bugs. However, proper and careful construction of quillbugs is required to render them practical and although at first glance this may seem difficult, any handyman should be enabled to construct such bugs by following the following directions.

The first step in construction is to select a quill of the largest diameter available, this should be not less than one-fourth of an inch at its largest place. Cut off about three-fourths of an inch from its butt end and smooth the edges with fine sand paper. When such quills are bone dry they are very tough and the cutting is best done with a jeweler's piercing saw having very fine teeth. If you are not familiar with this invaluable tool, be sure to mount the saw tautly in the frame and with its teeth pointed toward you so that it cuts when pulled instead of pushing as in the ordinary hand saw. Then saw off the extreme tip of the small end which is usually rather soft, with a slight slant forward. When cut, the quill section should appear as in Figure 1. It should then be attached to the hook shank for convenient work. A number 6 model perfect hook, with a 3-x shank, will be found of about the right size and weight. In attaching the hook a space of about one-eighth inch should be left between the back edge of the turned-down

eye and the front end of the quill. This space is for the hand of the bug when one is to be attached. When mounting the quill, the hook should be placed in the tying vice with the shank down as shown in Figure 2. With the left hand, the quill is held in the proper position and with the right a strip of plastic wood is applied over the shank along the entire length of the quill. Plastic wood comes both in cans and in collapsible tubes and, for this purpose, that in the tube is much preferred. Several colors are procurable but the white or "tile" is nicest to work with in this way because it is more easily seen. It is not quite so strong as the natural color plastic which is a dirty yellow, but it is plenty strong enough for our purpose when perfectly dry. It is entirely waterproof and takes color very nicely.

Now, holding the quill under the shank and in contact with it, as shown in the Figure 4 (2), press out a strip of the plastic wood and smooth it down with the index finger. But first moisten this finger with saliva—that is to say spit, a good old expressive Anglo-Saxon word. You know, spit is a mighty handy thing and when Nature gave us such a bountiful supply she expected us to use it as we jolly well pleased. Dogs know how to use it, but when I was a boy, men generally used it to moisten chewing tobacco and then threw it away by the quart. Well, people seem to be getting more economical, they chew gum nowadays and practice conservation, with the rest of us. But getting back to plastic wood, if you forget the spit, prepare to meet the stickiest substance known not excepting the boiling pitch of Dante's Inferno. It will adhere to your fingers closer than a small boy to the elephant tent on circus day. If, however, you do get some attached to your fingers and find them a good imitation of the digits on a wooden Indian, take a little ordinary lacquer thinner, to be had from any paint shop, and quickly dissolve it off.

After the quill is attached and while the plastic is still pliable take the hook out of the vice and examine the quill to ascertain that it sets true and symmetrically upon the hook shank. If not straighten it gently, pressing any of the plastic that may be displaced, back in shape. The mounted quill may now be set aside to dry and harden which will take only an hour or two. When perfectly hard the excess plastic may be whittled off with a small sharp knife. The surface of it should then be smoothed down with very fine sand paper.

The quill is now ready to be sealed and this is done with the plastic the smaller or rear end being sealed first. Take a little of the plastic on the blade of a penknife or similar small flat instrument and cram it into the opening. Then wetting the index finger of the left hand with the salivary secretion, hold it against the quill opening and insert in the front quill opening a match stick and tamp the plastic gently, so that it completely fills and seals the opening (Figure 3). Now stuff a very small wad of cotton wool into the front quill opening and push it back so as to leave just enough room for a thin layer



of the plastic to rest against it as shown in Figure 4. Be sure that the cotton wad occupies the least possible space in the quill as it is important to have this contain as much air as possible to preserve its buoyancy. Then squeeze just enough plastic into the opening against the cotton, to fill it completely. Allow to set for a few minutes, when you may find the plastic bulges outward and if so push it back gently until even with the edges of the opening. When these plugs have hardened, the mounted quill is then ready to be finished in any desirable color or fashion.

I have some that are simply painted in various hues with good liquid enamel. Most of these are finished with a hair or feather tail. This latter is easily accomplished by tying the bunch of hair together first and then smearing on to the tied end some plastic and pushing it against the tail end of the plastic plug in the quill. It will adhere there

and when hardened will be found firmly fixed. Such lures (Figure 5) form miniature plugs that are very light and which float on the surface unless dragged under it by a too heavy line or leader.

Now that the basic process in the construction of quillbugs has been exposed, the more complicated dressings of this type of lure may be undertaken. The first of these will be a grasshopper which I feel confident will be found to resemble the real insect much more closely than any imitation you have ever seen.

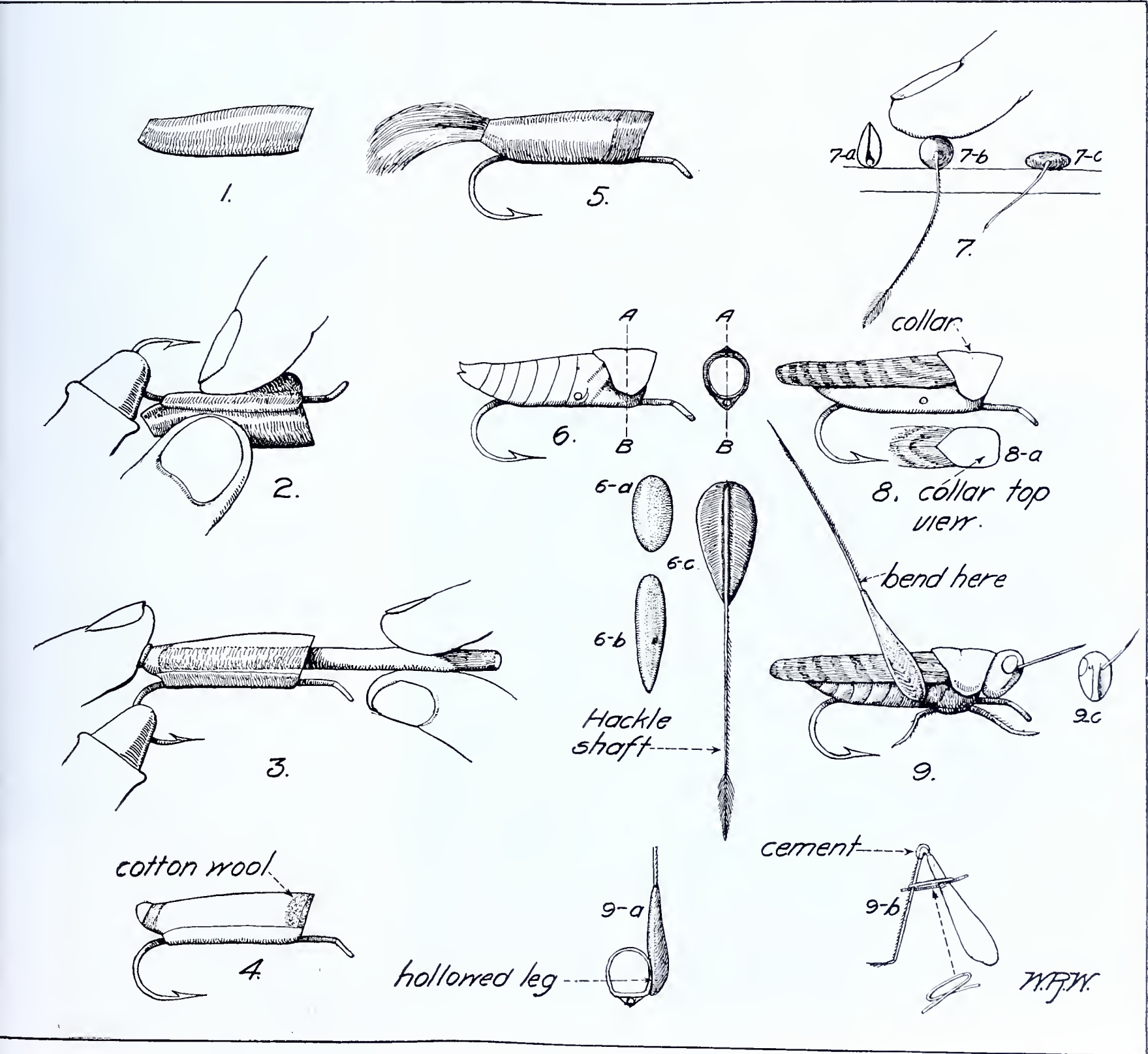
If you will examine the mounted quill it may be seen that this is almost exactly the same in conformation as the belly of a grasshopper and very nearly the same size. It tapers from front to rear and curves slightly upward at the tail end just as the tail of the insect does (see Figure 4).

In the operations now to be described it becomes necessary, because of the quick dry-

ing character of the plastic and cement used, to work rather rapidly.

An obsolete educational adjunct of my youth known as the "Spencerian Copy Book" had a line which said, "A place for everything and everything in its place". Now, from a fly-tyer's point of view this is a most commendable ideal but some one has also said that "order is the delight of the intellect, but disorder is the delight of the imagination". Although my wife became reconciled to my eccentricities in the latter respect, years ago, my daughter, still rebellious, exclaims "Judging from the appearance of your tying table, you must be highly imaginative!"

Well, that's as may be, but when in an emergency, one grabs hastily for a tool and grasps merely the thin air, he is prone to express forcibly a desire for greater intellect. Certain imprecatory remarks (muttered, (Turn to Page 19)





# FISH-O *versus* TOURNAMENT CASTING

By PETER J. SCHWAB

"**A**T long last the fisherman has his game!" So says Fish-O's publicity man. Time will tell.

The altruistic motive behind Fish-O is beyond criticism. The fisherman who ignores tournament casting just doesn't know what he is missing, and in all probability will never be able to cast a decent plug or lay out a decent fly. But **for the present**, at least, you can play Fish-O only so long as you use the riggin' which its sponsors dictate is good enough for you!

The May, 1939, issue of all the advertiser-supported sporting magazines carried simultaneous announcements of the new fisherman's game. In some cases earlier issues of the magazines carried a hint as to what was coming in the form of articles by their "fishing" editors of whom not one is an all-around fisherman or a top flight competitive caster.

Now it's nothing . . . much . . . against a fishing editor that he may be a specialist. We all have our hobbies and none of us can be all things to all men. Some of us are quite frankly plug casters by preference, others are fly or surf fishermen. Some of the editors know all that's worth knowing about punkin seeds, bullheads and other boy's fishes. Others are born lake fishermen, really capable of catching bass, wall-eyes and muskies. One of them is a good trout fisherman. And so it goes. All of them are worth reading when they know what they are writing about, but when under orders they started plugging for this Fish-O game

they demonstrated only too clearly how little they know of all around fishing, casting and tackle. They read the rules, missed (or ignored) the jokers, and dutifully sung the praises of . . . what?

Fish-O is little more than a good kindergarten approach to the fine art of tournament casting as practiced by the National Association of Scientific Angling Clubs. The attack, expressed or implied, upon the NASAC rules governing events and restricting tackle—an attack made by the Uriah Heeps among the scribes and implied by the rules of the Fish-O game—is unwarranted, biased and stultifying.

Let's look into it, constructively, because there is nothing better calculated to serve the needs of ambitious fishermen than the tournament casting games, and even Fish-O has some merits.

In the bait casting event, a really interesting and helpful game otherwise, the rules **require** that the reels "must be of standard manufacture as regularly supplied by their makers, and sold by them through their regular channels, and fitted with a level winding device."

The Fish-O rules require that the bait casting line "must be of strength not less than 10 pounds".

In the fly casting events the rules are worse! Rods, lines, reels, leaders and flies . . . everything the fly fisher uses must be of "standard manufacture".

At one fell swoop the sponsors of Fish-O would outlaw the best of what we have!

Out with the superb Meek and Talbot reels, made with the precision of a fine watch. In with the production line winches called reels by courtesy . . . any creaky old piece of hardware just so it carries a level winding device! Ye gods and little fishes . . . and little minded prophets (self appointed) of the fisherman! The blind leading the blind.

The rule which outlaws open reels discourages; nay, **prevents** hand spooling, an accomplishment of which all our great old masters of the short rod were inordinately proud, and rightly so. These rattling, finger pinching level winding devices are no help to accuracy and are ruinous to distance. But you gotta use 'em, mister—use 'em and like it. If you want to plug Fish-O you play it with the reel which the **fuehrers** say is good enough for you.

As to those 4½ or 6 pound test lines which some of you dudes have been using for years on your long, light, sporty rods, out with those also! They are too light. You gotta use our 10 pound clothesline. Why give the poor fish a chance?

And you smart Alecks who've been making your own reels and rods, splicing your own lines, tying your own leaders and flies, **allezvous-en! vamoos! eraus mit!** You're through, finished, washed up. From now on, WE will make your tackle . . . and your rules.

(It might be noted in passing that **all** the Fish-O events are accuracy events, the extremely valuable and thrill packed distance events being ignored as though of trivial importance when in reality they represent the major attraction of all casting tournaments).

Limiting the tackle to what is commonly called "fishing tackle" **bodes no good for the game and, if it gains acceptance, will inevitably kill all progress in tackle development.**

**The tournaments are the proving grounds for tackle.**

The important new ideas in tackle come mostly from the fishermen and casters; from the enthusiastic amateurs as in every other sport or hobby; from men actuated not by profit but solely by the desire and the will to excel.

It seems never to have occurred to certain gentry that we owe our present fine rods, reels and lines almost wholly to the "specialized games" which they are trying to discredit. One young department editor would rule out distance fly lines which he calls, "freak affairs spliced together in six or eight pieces from lines of as many different sizes. In other words, limit the contests to fishing tackle". The poor guy doesn't know that better fishermen than he will ever be, use **only** hand spliced lines for their fishing. Neither does he know that in no other practical way except through hand splicing and ceaseless experimenting can we determine the weights, tapers and lengths of each necessary to produce factory tapered lines worth using.

Thousands of fishermen make their own rods, splice their own lines and leaders, tie



Lee Sens, holder of both world's distance plug records, in action.





Dick Miller, holder of world's record distance fly cast of 187 feet, laying out a long one.



Sib Liotta, 1938 Distance Fly Champion, at the peak of his back cast.



Jack Sparks, all around casting champion, in the distance salmon event.

their own flies. I know plug casters who make their own reels, fly fishermen who either use no reels at all or who save their energies by carrying their reels on their belts. The wise rules of the NASAC deprive none of these men of those rights.

The wave of interest and enthusiasm which is sweeping the country for tournament casting is neither tied up with nor dependent upon Fish-O. The casting game is coming into its own honestly . . . because of its merits and what it has to offer the angling fraternity. It will continue to grow just as long as it serves a useful purpose, and remains entertaining as well as instructive.

Some of the newly organized clubs and associations of clubs recognize these facts and, sensing the inadequacy of Fish-O, have devised rules of their own. Level headed old timers have discarded the level winding requirement, and distance games have been incorporated to round out the schedule of events. These were good moves, but in some of the other attempts to rule making the organizers would have done better to follow the time tested rules of the NASAC. Some of the new rules might encourage the weak sisters among the membership but they certainly hamstring the more skilled casters and become boomerangs in the end. Take, for instance, the rule of the 10 pound line for plug casting. No man can cast as accurately or as far with a 10 pound line as he can with a 6 pound line. Nor with such a line will he employ the longer, lighter, sportier rod he uses in fishing. When you prohibit the skilled caster from using his 6 pound line, you deprive the really earnest beginner of the very exhibition of skill which he needs most.

In fly fishing, of course, the reverse is true. Why limit the skilled fly caster to a line of .060" diameter if he is capable of handling something heavier? Why make him cast with a reel affixed to his rod when in actual fishing he may carry his reel on his belt? The rules of the NASAC are infinitely better and more liberal. Under them the beginner gets to know tackle and how to use it. The rules encourage initiative, inventiveness, skill.

For upwards of 30 years the NASAC has been doing what the Fish-O crowd is just starting!

The substitution of "standard" or advertised "fishing" tackle is going to produce no new records, no new champions. Such rules have been tried before . . . often . . . and the result has always been the same. New faces are attracted to the games. That's good—

and time may show that this feature alone was the justification for Fish-O.

As the fisherman becomes a really good caster, however, from practice on the club pool and association with the club members, it begins to dawn upon him that certain "standard" items of "fishing" tackle are inadequate to his needs. One by one he drops them from his war bag and eventually he possesses a specialized outfit and his friends begin to call him "a'nexpert".

The funny part of it is that good casting tackle is often the best of fishing tackle and it is not necessarily the most expensive. The most costly and hallowed of rods, for instance, have made the poorest showings in the tournaments of recent years. Expensive reels and lines have met with the same fate. Now, as always, its 75% man and 25% tackle that wins the tournaments.

Summing it all up . . . Fish-O is the result of a clash between conflicting opinions. The interests of the fisherman, casters, sporting magazines and tackle manufacturers are identical . . . with everything to gain and nothing to lose by amity.

From the very beginning the one thing which the games needed to grow has been publicity and here the sporting magazines almost without exception have sadly missed their calling. Had they opened their columns to frequent articles and discussions of tackle and casting, and had they reported the tournaments, activities and progress of the already existing casting groups the games would have become popular years ago. For every line of space grudgingly given the casters, the magazines have given columns to Skeet, Trapshooting, Arms and Ammunition, Fresh and Salt Water meat fishing, Trailers, Camping and Woodcraft, Outboard Motors, Boats, Canoes, Log Cabins, Photography, Dogs, Snakes, Frostbite and Ivy Poisoning.

Despite all this the casting games . . . the old, proven games if you please . . . took a new lease on life several years ago and are rapidly achieving national popularity. The spectacular record smashing distance fly casts of men like Marvin Hedge who first introduced the left hand haul into the national tournaments, Richard G. Miller holder of the alltime distance fly and salmon casts (Buffalo, 1937), Earnest "Sib" Liotta (1938 Distance Fly Champion) and Jack Sparks, (All Around Casting Champion both 1937 and 1938), Lee Sens, holder of both distance plug records . . . amazing feats of these men, smashing record after record and all within the past several years, are principally responsible for the awakened interest in casting.

When a man using 5¾ ounce split bamboo rod casts a fly 187 feet as Dick Miller did in Buffalo that's news.

So was it when Lee Sens, slammed a ¾ths ounce plug out for a distance of 380 feet at Columbus.

These feats made the headlines in the newspapers and they were reported and commented upon by former champions like Art Neu and Jules Cuenin, and present champion Jack Sparks. Even before that "Sports Afield" threw its columns open to technical tackle discussions by Crompton, Cuenin and . . . whisper it . . . the writer. Fish-O or no Fish-O, tournament casting is coming into its own.

As I've said elsewhere there are plenty fishermen among the casters, but darn few casters among the fishermen. I've been a fly fisherman for more than 30 years and I've hobnobbed with the champions for more than 20 years, but in my self-complacency I sorta snickered at their "play".

Then I wandered to the National Casting Tournament at Columbus last August. There I met the wackiest bunch of good eggs; men

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The author picking up a long cast on the Susquehanna.



# LIGHT LURE NOTES

## Jottings Relative to Bait Casting in Central Pennsylvania Streams

By ALEX P. SWEIGART

THE smallmouth bass of smaller streams is definitely a problem fish for the bait caster. Until a number of years ago, we were of the opinion that the fly rod fished with fly and spinner was the only really practical method for its taking with artificials. Characteristic of these streams are long, shallow flats, generously supplied with weed beds, ideal foraging grounds for the trim smallmouth bass and pickerel. Pockets occurring in weedy sections of the flat were ideal for fishing fly and spinner with the fly rod and yielded many strikes. Conversely, open sections of flats, when fished with casting lures weighing an ounce or over, yielded few if any strikes from ranging bass although occasionally pickerel were to be taken.

Established fishing customs are hard to shake. It required many moons for the fact to seep through the thick skull of the writer that, while these heavier casting lures definitely had their place and consistently took largemouth bass in lakes and ponds, they were much out of the picture in fishing smaller streams. Smaller, lighter lures, lures that could be cast and placed on the water with a minimum of splash and commotion, were called for by existing conditions. During the past three years, these baby plugs and spoons have yielded splendid sport for a group of central Pennsylvania casters. Fished with a 9-pound or 12-pound test line, a leader of artificial gut, 10 or 15-pounds test and from 6 to 12 feet in length, they have proved uniformly successful fish takers under average conditions prevailing in smaller central

Pennsylvania bass streams. The leader should be attached to the line with the double barrel knot or double water knot. This knot, when pulled tight, is so small and compact that no difficulty is experienced in having it pass through the level-winding device on the average casting reel. For most satisfactory fishing with these light lures, the rod should be at least 5½ feet and preferably 6 feet in length and have a fast tip action. We have been using a 6-foot bamboo this season with utmost satisfaction.

Solely in the interest of bass forage conservation, we list the lures shown in the accompanying cut, their weight, and the manufacturers of these lures. They range in weight from one-quarter to one-half ounce, and, while the models illustrated happen to be pets of the writer, other finishes and other lures of similar weight have proved very successful for anglers of our acquaintance. To date (August 4th) these plugs have accounted for 17 smallmouth bass, 10 to 16 inches in length, 7 chain pickerel, 13 to 20 inches in length, and one wall-eyed pike, 19½ inches in length. Of these fish, only two bass, 15 and 16 inches in length, respectively, the walleye and largest pickerel were killed. Twenty-four smallmouth bass under legal size were caught and released, not one of them being seriously injured.

Now back to the lures in the illustration: No. 1 is the Midget River Runt by Heddon, weight ¾ ounce, slow sinker. This baby lure in the shiner scale finish is a honey in taking wall-eyed pike. It has an extremely short fast wiggle, and for walleyes should be permitted to sink and retrieved very slowly close to bottom. While with the River Runts, we may as well refer to the jointed model No. 3, a moderately fast sinker. Owing to the ledge formation frequently occurring in deep walleye pools, the double hook arrangement on this model is extremely practical. The jointed Runt, weighing one-half ounce, also ranks as a good largemouth bass lure for use in lakes and ponds. No. 3 is also in the silver finish with black back.

Frequently when streams are above normal flow, a dense growth of weeds is to be encountered immediately beneath the water surface. The Creek Club Bait Company have produced a sweet little lure in No. 2, their midget Plunker, weighing ¾ ounce, for meeting this condition. The model shown is in the perch finish. This midget lure may be cast with a minimum of disturbance. It is a good floater, should be left to rest from 10 to 20 seconds after the cast and retrieved in short jerks, allowing a short time to elapse at each pause.

The South Bend Bait Company has brought out a new lure this year, the Fish-O-Bite, weighing one-half ounce. This is a slow sinking wobbler that, in the shiner scale finish, holds promise as a good lure for wall-eyed pike. It should be retrieved slowly, close to bottom, for best results as it has a rather short coupled wiggle.

Now we come to No. 5, the Shakespeare Midget, popularly called "punkinseed" on occasion. Weighing one-half ounce, it is a straight running plug that has a definite place in the light lure kit. Finish shown is yellow body, red head. This plug comes through with a short treble at the tail that is a very poor hooker in its position behind the aft propellor. By replacing the tail treble



This graceful 15 inch smallmouth is typical of bass taken in smaller streams. It fell to the Midg-Oreno.

with a longer shanked bronze double hook, as illustrated, the effectiveness of the Midget is greatly increased. The depth at which this plug may be fished is governed by the speed of the retrieve. In weedy waters, it is wise to retrieve it fairly close to the surface. It is a moderately fast sinker.

The lightest lure in the group is No. 6, the Daredevil Imp, by Lou Eppinger, a very handy addition for the kit when on pickerel waters. The Imp, weighing one-quarter ounce, is a sweet caster and has a darting, erratic motion when retrieved. It comes through in different finishes, that shown being the green scale. Equipped with a single hook and bucktail, we believe that the short double weed guard over the hook might well be dispensed with for more effective hooking under certain conditions. A small snap and swivel should be used with this lure.

No. 7 is Mack's Minnow Bug, a ¾ ounce straight running little lure that ranks as a pet with some of our best casters. This single hook lure is a good caster. It sinks rapidly and the retrieve should be started immediately upon termination of the cast. A small rubber pork rind is believed to enhance its effectiveness. Color of the model illustrated is yellow.

Subject to plenty of usage in recent years has been No. 8, South Bend's Midg Oreno. The midg shown here is in the shiner finish, although many prefer the perch and yellow perch finishes in this particular lure. Weighing ¾ of an ounce, it has a delightful way



Light lures rank high for stream smallmouth and pickerel.

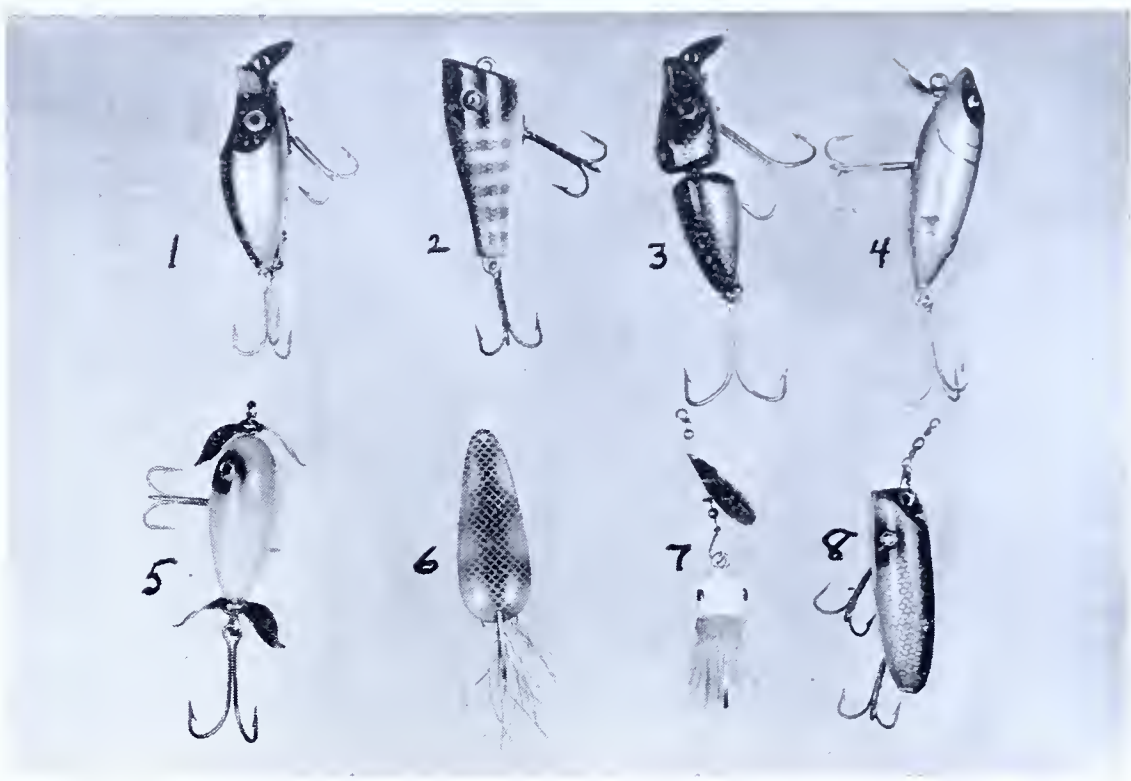


of striking the water, at the termination of the cast, with a tiny splat apparently appealing to the whims of the stream smallmouth bass. This little lure floats but when the retrieve is started darts beneath the surface with a lively wobble. Most strikes to date this year on the Midge have occurred in the first few feet of the retrieve, although the best bass taken struck when the lure had completed half of its rod-ward journey.

### Casting Notes

Definitely handicapping the stream bait caster during the early days of the bass season was muddy water. Later, drought reduced stream levels to record or near record lows. A dense growth of weeds was present in most streams fished. These included Tuscarora Creek, Juniata County; Sherman's Creek, Perry County; Chillisquaque Creek, Montour County and Middle Creek, Snyder County. The Aughwick Creek, Huntingdon County; the lower Juniata River, Perry County, and the Susquehanna River in the vicinity of New Buffalo, Perry County, have not to date revealed so many weed beds in sections fished.

Over the Fourth of July holiday, a splendid opportunity was afforded to test out the merits of light lures as compared to the effectiveness of live bait, minnows, stone catfish, helgramites and crayfish, for live bait fishermen were numerous on all waters fished. Fishing during that period was confined to Tuscarora Creek and Sherman's Creek. Both streams were clearing and the light lures yielded a total catch of 15 bass on July 3rd and 4th, seven of them ranging in size from 10 to 16 inches. Only the 16-inch fish was killed. The best pickerel taken to date was caught in the Tuscarora on July 3rd. This fish connected solidly with the Midge Oreno, following the lure to within 10 feet of the rod tip. It broke water beautifully two times and, all in all, gave a very creditable exhibition of gameness.



Pets in a Light Lure kit.

Old time fishermen have long subscribed to the theory that moon phases have a definite bearing on the fishing. In support of this argument, by far our best plugging was had either during the dark of the moon or when the moon was on the wane. It was found difficult to arouse much interest on the part of bass and pickerel in our casting lures when the water was extremely low. Stream temperatures during the peak of the July drought on these smaller bass waters ranged high. A temperature reading made on the Tuscarora on Saturday, July 22, at 3 P. M. showed 89 degrees Fahrenheit. Incidentally, the poorest fishing of the month was experienced on that occasion.

"There's a time and place for everything" is a well worn saying that may be applied satisfactorily to light lure bait casting, we believe. Let your lure selection be governed by the particular water you happen to be fishing. For instance, after having fished the open and deeper water of a flat with a wobbler such as the Midge Oreno, don't hesitate to switch to a more weedless type of lure for the weed beds and pockets occurring very often in the lower sections of these flats. This procedure is a lot gentler on the disposition, for generally the first dive of the wobbler will tangle its trebles into a mass of weeds, and if fish are to be taken with weed trailers festooned from the hooks, we'd like to have the lowdown.

Several of the lures illustrated come in handy at such locations. In addition to the Midget Plunker, which is purely surface, the single hook Imp works well. Weed pockets during the hot months are extremely likely places for pickerel. It is a good plan to carry two models of the Imp, one equipped with the weed guard and the other without, to meet varying conditions under which you may have to fish. The little Minnow Bug is another satisfactory lure for fishing weedy stretches, since the generous size spinner with which it is equipped and the hair covering the hook act as fairly good weedless features.

It may be just imagination, but it has always seemed to us that the vast majority of strikes recorded on these baby lures have followed casts in which the lure landed with a minimum of splash. This action may be secured through sharply raising the tip of the casting rod when the lure in its downward arc is at a point about 8 feet above the surface of the water.

Finally, in casting for creek smallmouths, it is well to place them in the category of our more shy and wary fishes such as the trout. In the clear, shallow water of flats where they do much of their foraging, any excessive splashing about and wading yields mighty poor dividends in strikes, we have found. The less wading the better is a good rule to apply in fishing smaller pools. While hip boots are practical for this type of fishing when water temperatures drop in the fall, a pair of old khaki trousers and sneakers prove first rate wading equipment during the hot months. Eliminating bulk in the wading outfit and observing just ordinary rules of caution in approach to feeding fish are on the credit side of more tight lines.

Here's to luck with lighter artificials. May they replace the bait bucket!

### CLUBS PLANNING MINE SEALING

The Nessmuk Rod and Gun Club will cooperate with the Asaph, Blossburg and Morris Clubs to close two abandoned mine drifts which will provide an estimated 30 miles of additional good trout water in Tioga county, it was announced at a Nessmuk Club meeting. The drifts will be sealed in a manner which permits the water to flow from them, but keeps out the air, preventing further oxidization.

Game Protector Leslie Wood reported that 375 adult ringneck pheasants were released in Tioga county this spring. All birds carry leg bands and sportsmen were requested to report all banded birds killed by them during hunting season.

Lewis Corwin, secretary, reported that the club now numbers 270 paid-up members.



Nev Sherlock, acting director of the Dog Law Division, Department of Agriculture, took these Juniata wall-eyes, 22 and 19½ inches in length, on the Midget River Runt.



# PAGING MR. BRETH

## There is a Group who Fish as He Thinks it Should be Done

By CUMBERLAND FISHER

FROM a man who is undoubtedly a true sportsman and an ardent conservationist came an article about plugging entitled, "Friend Angler—Are You Missing Something?" Mr. Breth knows well the superior fishing and great joys which come with plugging. He realizes that the taking of live bait from our streams is depleting bass forage and there is danger that the result may be a major bass depression. He knows the answer is education. He knows that the only way the rank and file will ever turn to artificials is to be advised of their great possibilities. He knows that bait casting can be utterly hopeless unless the proper equipment is employed, but with the right medicine it is highly effective.

In this neck of the woods there are many very excellent plug fishermen who annually catch hundreds of bass and dozens of big ones. They all use similar equipment and fish the same waters. At one time they all used live bait but each and everyone will tell you now that those days are gone forever. They will tell you that they are gone because plugs are more fun to handle, that with them bass come faster and run larger, and that no time is spent searching and caring for bait. There is no doubt in their

minds about their sport; they are sold on their little plugs and all that goes with them.

These New Cumberland fellows have a common rendezvous. Their meeting place is the restaurant of genial Elmer Lower, the luckiest fisherman of them all. The big bass and the big "salmon" (walleyes) that have been slapped on the counter of that restaurant by the plug fishermen during the last five years would make the eyes pop of the most successful. Think of it; many dozens of big rangy river bass from 18 to 23 inches in length have been displayed and admired there as well as plenty of "salmon" that break the 2 foot mark. Those are fish in any fisherman's language.

Here the big fish complex reigns supreme. Limit catches are down right common but limit kills are taboo. Life there would certainly be miserable for the individual who brings in to display his limit of little fellows. It is the common belief of these fishermen that ALL "fliers" (bass under 12 inches in length) are far more valuable in the streams than in the frying pans; so back they go. Even bass that some fishermen would call big have been released. It is probably not stretching the point one iota to say that this group catches and carefully releases over 1000 legal bass each year. What a tremendous drain this would have been on their fishing grounds if all those "fliers" had been slaughtered! Year after year they put back many more bass than they keep and certainly that is the way it should be for all successful fishermen who have the opportunity to fish a great deal. A mature bass is just another fish but in a year or two or three he may be a trophy, and in the meantime, if the fish gets by, his scions will be placed in the waters for the fishermen. It is the sport that counts, not meat, and we can't have both, for there are now too many fishermen today for that.

Somehow conversations about how good they taste or how to cook them just seem to rub most of these fellows the wrong way. The great purpose of these fish is to furnish sport, not food for man. If it is cheap food one is interested in securing, Pennsylvania fishing won't furnish it. Save your time and money and go to the market. Yes, sir, our fish are here primarily to furnish sport.

Plugs may not be vastly more effective than live bait, but in the hands of a good angler they are considerably more effective. The ultimate result may not be 5 to 1 in favor of plugs but we have money that says it is 2 to 1 or better for size or number.

The first big bass of the '39 campaign to find itself on the restaurant counter came from the Conodoguinet Creek; it was 20½ inches in length weighing 4 lbs. 6 ozs., and was taken the first day of the season that that stream was in shape. Its captor is a converted fly and spinner fisherman who formerly could not catch big fish. This was his biggest bass and he has been plugging but a short time. Two days later he repeated

with another big one from the same hard fished hole, and on another occasion during the first month of the season he came through with a fine catch of "salmon".

Yesterday one of the stalwarts reported a rather poor day in the Susquehanna below the Conowingo Dam because he caught 25 bass and not a single one was over 3 lbs. While he was busy with the "fliers" another one of the local cohorts took a 26 inch "salmon" from the Susquehanna within the city limits of Harrisburg almost under the shadow of the Capitol buildings.

On our last jaunt to the Juniata we had action aplenty. We faced a stretch of water for the first time. In the clear channel before us two submerged boulders were visible. On the first cast my plug hit in front of one of the boulders and a bass immediately took the little sinking propellor plug. When the fish jumped out of the water the plug and the bass parted company, but just as the plug again hit the water, upon being thrown by its wouldbe victim, another quickly took it. After this fish was shaken off another took the following cast in the same place. Here was something new, three strikes and three hooked fish on two casts. As my companion and I joked about this maximum amount of action he had a heavy strike at the other boulder and proceeded to hook, play and land a "lunker" which tipped the beam at 4¼ lbs. And that was not the end of the activity of the afternoon, for more bass and "salmon" followed. To be sure this was exceptional, but with plugs one never knows what to expect next.

One evening last fall one of those strange exciting experiences occurred which forever leaves one wondering. I hooked a "flier" and had it very near my feet trying to shake it off. All at once instead of a bouncing bass on the other end there was something with tremendous power taking out line at a slow steady rate. Something big had grabbed the little bass and was carrying it into the deep hole below the ledge. What to do was the question. The big fish made a circle of about 100 feet then started to come slowly toward my position. I was standing on an island with a shallow bar adjacent to it. It did not seem probable that the big fish had a hook in it, for there was no sign of alarm, just businesslike mastication. Apparently it was cruising around with the bass in its mouth like a chicken with a worm. We concluded to try to slowly but gently reel the fish to the bar. In the half light my companion was to try to scoop or shovel it with the landing net and flop it on to the bar before the fish knew what it was all about. Everything seem to be working as planned and the fish was led right up to the bar, but it was too dark to see it. All of a sudden there was a violent struggle to break away with the little bass but I would not give much ground. This unnatural resistance must have made the fish suspicious for amid a great swirl he released his hold and returned to the depths. Upon examination we



The younger generation is falling naturally into light lure bait casting.



The association has also advised newcomers in the bass angling sport that if they wet their hands before taking small bass from the hook they will save the future supply. A dry hand causes a fungus growth to occur on the fish, which eventually causes its death, the association claims.



# 80 DAYS WITH BAROMETER FISHING

By "DOC" HOWE

IT'S fun to prove a writer is wrong. Most fishing stories to me are lots of words woven around a grain of truth. A heap of chewing for a wee bit-o-sweet. Having time, a lake full of trout (my favorite fruit), a birthday present barometer, and a deep rooted desire to make a liar outta Taylor's Ads and barometer fishermen, were incentives. A too positive article in one of the popular fishing magazines about this hoo-ey was the irritant.

The trailer was parked at Half Moon Lake, Pinedale, Wyoming. Elevation 7,600 feet. Twenty feet away was a spot in the lake that several rainbows and natives called Heaven. Overhanging bushes and trees, a fairly shallow rocky bottom extending out thirty feet and then rapidly bouncing down to over a hundred foot depth, with a couple of old sunken branchy logs, seemed to have made a desirable hideout.

Hanging the barometer directly over the head of my bed made it convenient for a belly laugh without getting up. With a diary and a half-hearted chart I started in. Made a dot for the time of day and the reading. When thought of again made another dot and connected the works. As with a new car or outboard motor the directions were left to be glanced at when trouble arose and not until.

Fishing was good but mountain storms came without warning and several times kept me down the lake long after lunch hour had grown dim. That burned the central area to extremes. Then I noticed the 'infernal machine' had sharp rises or falls when these occurred. That helped. It wasn't long before an oozing took place thru the prejudiced filter. Weather happenings were writing their story 12 to 24 hours ahead. I haven't been caught in a high wind, rain or hail storm since. There really must be a reason for the Government using the things. I then perused the directions and nearly got lost in the fog. Dumb? You said it. Gradually some light dawned.



The author trying to get a tale from a western Eastern brook.

About the time weather was gaining recognition it burst on me like a Wyoming sunrise that I was getting my best fishing on a rising barometer. You see I only fish 12 months of the year and my inclinations had been a fairly good guide heretofore. Afterwards when an old socker smacked under

my window at an hour no self-satisfied fisherman is up and around, I jotted the time and reading. Joining all these smudges together and studying the fishing notes in the diary was revelation. There had been no rises of trout during a period of falling barometer, very few when it leveled off, and all acrobatics took place during a rise. Now I was in a backlash.

From here on I fished barometer in earnest and it hasn't lied yet. I did have one scare after I became a rabid fan. It was evening, she had been dropping all afternoon, when the trout began to play havoc along the edge of the lake. I very sorrowfully grabbed the rod and made hay. Three nice fat rainbows on a #16 multi-colored variant before dark . . . but . . . a fine theory exploded just as I became a convert. Hated to go in and look at Mrs. Judas Priest's instrument. Anyway I did and I hope to lose all my tippets in the drink if that blessed object hadn't gone up two points.

I checked with other calendar guides for a week but when they were wrong three out of five times and the barometer was right I quit. Life is too short and I've found my friend. Now what I want is a recording barometer the size of a watch that adjusts itself to altitude automatically. Scrambling up and down these mountain streams will not be in vain then. I think I have learned a few things. If they sound all right—try 'em—if not—forget all I've said.

My observations were practically all on the lake. I believe they will work on a stream too. There is usually a morning and evening barometer rise but not always. During the rise the fishing is the best. If the rise lasts all day so does the good fishing. If the rise continues thru for the second day—it's the perfect fishing you dream about. When it levels off the fishing decreases, when it declines the fishing stops. I speak of fair sized fish as the very small ones may still feed and at times seem to come into their own when the big ones are down.

Because the barometer tells many hours ahead, it can be storming maliciously and yet the barometer rise and the trout hit right now. I have seen insects all over the surface of the water, laying eggs, resting, reading or what have you, and not a trout in sight or interested. Then have the barometer start up and everything scooped with a bang.

How the barometer affects the bait fisherman or the man who fishes deep I can not say. We have gone out once or twice with a fly rod in the evening when there was no rise and trolled with a midget plug, nine foot leader, 3X tippet, 100 feet of line, no sinker, and have caught a few 18 to 20 inch trout. Otherwise the fishing has been mostly dry fly with a little nymph fishing for variety.

Barometer reading in this region is like bronc riding, up and down with jolts. The range of the needle from early May to the last part of July was 50 and as far as I am able to determine it made not one hackle's difference to the trout whether it was high or low. It had to be on the turn for up to

(Turn to Page 18)



St. Petersburg, Florida, trailers take over at Half Moon Lake, Pinedale, Wyoming.





**Question:** A group of us are interested in improving a meadow trout stream in a central county and are thinking about installing dams to create better pools for trout. However, this section of the stream is very open and becomes pretty warm during the summer months. Would dams be the right answer to bettering conditions in this respect?—H.J.P.

**Answer:** In this instance, dams might do a lot more harm than good. Obstructing the normal flow of a stream, particularly in open agricultural districts always carries with it the risk of raising the stream temperature to the detriment of trout in that and downstream sections. Deadwater areas exposed to the sun carry a definite risk in this respect. From your description of the stream in question, we believe that well constructed V-type current deflectors, either boulder or log, would prove far more satisfactory. In addition to speeding up the flow of the stream, these deflectors in confining the current usually have a definite scouring effect on the bottom, a vital consideration in the scouring away of silt on the stream bed resulting from years of erosion. An intensive willow planting campaign next spring with the idea of introduction of more shore cover to provide shade should also be beneficial.

**Question:** Can the crab or crayfish be raised successfully under hatchery conditions?—R.N.

**Answer:** The Conservation Department in the State of Ohio has demonstrated conclusively in recent years that this may be accomplished successfully in ponds. This program of forage restoration in waters of the Buckeye State has been under the direction of T. H. Langlois, Chief of the Bureau of Fish Propagation, Ohio Division of Conservation. On Ohio State Fish Farm No. 2, Pond 8, having an area of one-third acre, yielded 38,617 crayfish, weighing 529 pounds, in addition to a bass crop in 1935.

**Question:** How many hooks are permitted on a plug?—J.R.

**Answer:** The Fish Commission has ruled that three burrs of hooks, each burr not having more than three points, are permitted on a plug bait. In the words of the ruling, "Until further notice, the Board of Fish Commissioners will consider a burr of three points as one hook, thereby permitting the use of a plug bait with three burrs of three points each".

**Question:** I understand that September and other autumn months are good for muskie fishing. Do we have many good muskellunge waters in Pennsylvania and if so, where? What is a good bait to use in taking these fish?—L.J.R.

**Answer:** While the range of the muskellunge is limited in Pennsylvania to a few lakes and streams in northwestern counties, these waters annually provide excellent sport with the game fish that has been aptly termed "tiger of the freshwater". In Erie county are Edinboro Lake, Lake LeBoeuf and Presque Isle Bay (Lake Erie); in Crawford, Erie and Venango counties, French Creek. Crawford also has Conneaut Lake and the Upper Allegheny River. Quite a few muskies, incidentally are taken each year from the Allegheny, but in weight and girth, these fish do not generally compare to the fish taken in the lakes. An old time favorite bait with muskie fishermen has long been the sucker, trolled slowly behind a boat. Suckers ranging from 10 to 15 inches in length are frequently used. After a muskie has struck, plenty of time is given it to mouth the bait and take it down, sometimes 20 minutes elapsing in the process. Plugs also are used successfully on occasion for this species.



The boys shure did go ter town durin' the past munth in killin' watersnaiks in this neck o' the woods an' I reckon we saved rite menny fish by doin' it. Funny erbout them there snaiks. Fer the past 5 years we bin astagin' snaik hunts regalar an' a lot o' the kids bin doin' there part, too, but it seemes like every yere the snaiks cum back plenty. This here hez bin a gude yere fer the snaiks ter work on fish. Most o' our runs an' the big crick wuz powerful low an' it wuzn't no trick fer a watersnaik ter corner a trout er catfish. Another thing, when low water cums, menes thet fish are moar er less crowd-ed tergether in the holes an' thet suits mr. snaik ter a T.

Rite erbout now is a prime gude time ter thin down the watersnaiks. The ol' she snaiks are barin' there yunguns an' afore they do they git rite logey an' it ain't no trick ter cum rite close ter one o' them layin' along the bank o' the run er crick. I kilt four ol' she uns so fur an' when I cut 'em open found frum 12 ter 24 young snaiks in 'em. Reckin mebbe thet's why in spite o' the way we bin thinnin' down the watersnaiks, we still find too many along our cricks ter be helthy for the fish.

Them baby snaiks is shure lively leetle cusses frum the time they're borned. Most ennything along the crick semes ter go ter town in eatin' 'em an' I saw a ol' shikepoke 1 day gobblin' up a bunch o' them quick as you cude say jack robison.

It sure is gude practice with a 22 rifle ter go agunnin' for watersnaiks this time o' yere an' sharpens up the ol' shootin' eye an no mistake. I figger with our streams so low every feller thet likes ter fish ought ter do his part in keepin' these varmints under control.

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#### TO ORGANIZE JUNIORS

George A. Dieffenderfer, Traveling Game Protector, of Shamokin, says that he is helping organize a Junior Sportsmen's Club for boys between the ages of ten and sixteen. The club will be affiliated with the Keystone Fish, Game and Forestry Protective Association. About 50 members have already been enrolled, and over 200 additional applications have been received.



# BASSING MANEUVERS WITH THE FLY ROD

By CLAYTON L. PETERS

It has been said many times that bass are where you find them, but therein lies the secret, acquired only by actual experience of finding, or rather knowing where bass are to be found at certain times of day and under given conditions, and right here I want to register with the several thousand fishermen who are considered ready for the nut house because they have endorsed the solunar theory. I am thoroughly convinced that atmospheric pressure caused by the forces of sun and moon have a decided relation to the actions of fish as well as land roving mammals.

Fishermen sometimes spend hours working their favorite pool or eddy without results and finally give up in desperation, concluding that the fish have all been taken out, when the truth of the matter is that they have simply moved to a different location temporarily and when conditions warrant they again return to the favored pool.

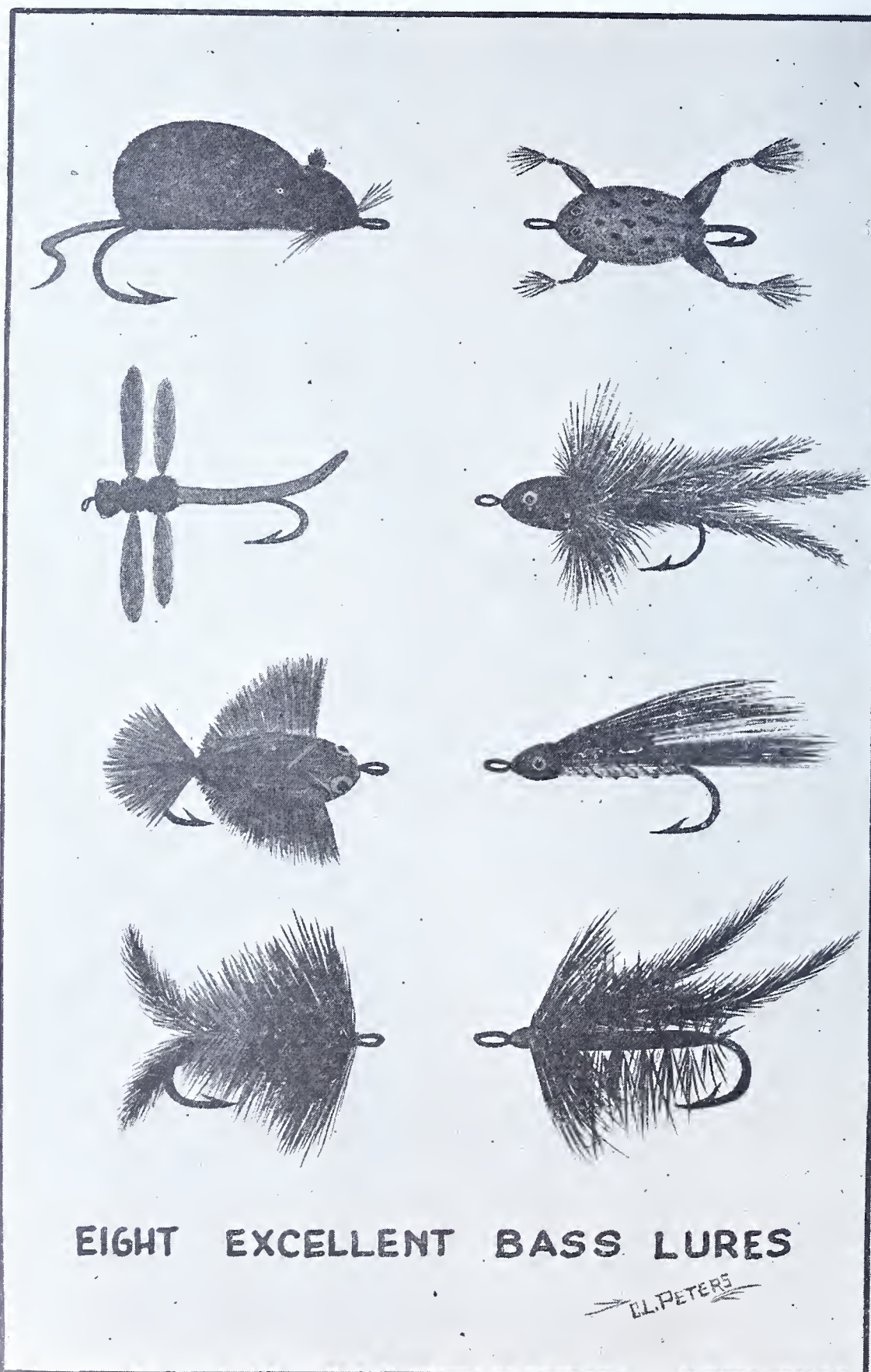
A fair knowledge of the fishing grounds will enable one to determine the approximate location of fish under given conditions. One of my fishing companions possesses an uncanny ability to locate fish without the usual procedure of trying various types of water. This I feel is due to the fact that he is a seasoned fishermen with years of experience and has taken time to observe instead of rushing at his work without first thoroughly diagnosing conditions. There is also some marked difference between the smallmouth bass of our rivers and streams, and the bigmouths that favor the warmer waters of the lakes. Our fishing close to the vicinity of Harrisburg consists mostly of river smallmouth and for this kind of fishing no other method compares with the fly and spinner for the fly rod enthusiast, although there are times when late evening fishing will bring results by employing a large floating bug or crippled minnow.

As I write this article there comes to my mind a favored fishing location in the Susquehanna river above Clark's ferry bridge where the shore line tapers gradually to a point where the bottom suddenly drops off to a sheer ledge. This ledge has been washed out underneath forming shelves. During low water and extremely hot weather the bass lie under these shelving projections, out of sight of natural enemies and hidden from the intense summer heat. When evening approaches the bass leave their secure retreat and feed at several different points of vantage. Along the weed fringed shore line shiners are easy prey and the bass can usually garner a good meal with little effort. At times when minnows are not to be found in the shoals, the fish will often be found along the weed patches, or a stretch of shore where there is a profusion of weeds and lily pads. These spots offer plenty of food and excellent shelter. There they will lie waiting for an unfortunate bug or frog that might venture too close to their hideout. This trait while often employed by the smallmouth bass is a common method of the heavier, less active bigmouth. An unwary dragon fly that alights momentarily on a reed or lily pad becomes a toothsome morsel

to whet his appetite. They will often follow a dragon fly for quite some distance in an attempt to catch it close enough to the water to seize it. Like miniature submarines they cruise along the surface with their spiny dorsal fins above the water level and woe betide the dragon or damsel fly or even June bug or moth that ventures too close to the feeding grounds.

Fishing the shore line with its grass patches, lily pools and eddies offers by far

the easier spots to fish and when minnows top the menu on the bass' appetite, bucktails and streamer flies are decidedly useful deceivers. For this kind of fishing I prefer a large fly of either bucktail or streamer type, tied with a lead encased body. This eliminates the necessity of using split shot on the leader and handles much easier due to the weight being at the end of the line. With the weighted fly it is possible to fish deep or near to the surface, depending on the





speed at which the lure is retrieved. A number two copper or gold spinner seems to be the most attractive.

When bass are surface feeding, a brown or badger bivisible, a cork or deer hair bug, dragon fly or cork bodied feather minnow will usually provoke a strike. However, when a bass is seen rising he can usually be taken on a submerged fly. I find the real difficulty in fishing bivisible or small flies is that about the time you are expecting a good bass to strike, a rock bass, fall fish or sunny will spoil the show by showing his aggressiveness before his bigger competitor has had time to look the situation over. Of course, the same is true of fall fish when fishing streamer fly and spinner. The chances of being bothered by rock bass and other pan fish is reduced to a minimum by the use of the larger floating lures constructed of either cork or deer hair. These deer hair lures cast well, are good floaters and when bass are in the humor for surface feeding, they will cause bass to strike quite readily. Very often a cork bodied feather minnow, twitched gently to fool the bass into thinking he has a cripple for easy prey, will bring a thunderous strike.

The surface lures will take many river bass by the above described methods but my experience proves to my satisfaction that more and larger bass will be taken by the use of the sunken fly in river fishing.

Mid-day fishing is at its best in the currents and riffles or some deep spring fed hole, where the fish can enjoy the cooler waters. In these places the sunken fly and spinner is at its very best. When fishing currents, best results are produced by casting across the head of the current and permitting the fly to be carried down and across the fast water and retrieved up stream. Each cast may be permitted to swing a foot or so further down stream and retrieved in like manner until the entire eddy has been covered. Sometimes when the cast has gotten down into the deep water it can be held there momentarily, and then moved about two feet and stopped again. The spinner will provide enough action to make the fly noticeable and many strikes can be had by this method.

Fly patterns for bass may be a matter of taste but I have no use for winged flies of the standard patterns and find the streamer type too successful to change to winged flies. My fly box as well as those of my fishing companions does not contain a single winged pattern and I am safe in saying that we catch as many fish as the great majority of anglers and more than the fellow who hasn't gotten past the live bait fishing stage. I suppose this statement is going to provoke consternation among some of the dyed-in-the-wool bait fishermen, but we certainly are aware of our records compared with those with whom we come in contact along the stream.

My bass fly kit contains the following: Streamer flies of six patterns as follows, red and white; black and red; ginger brown and black; ginger; yellow; and badger. The combination of ginger brown and black has caught the most fish and naturally is a favorite. The floaters are comprised of hair bugs, frogs, mice, cork minnows and dragon flies. Brown or black bugs seem to be the most attractive. These lures will serve for the average fisherman and insure plenty of sport with the fly rod.



Somewhat heavier rods are desirable for bass fishing than those generally used for trout due to the use of heavier lures. I believe a 9 or 9½ ft. rod that weighs 6 or 6¼ ounces is the most practical. These rods will carry an H.C.H. tapered or C level line very nicely, and the large lure having more resistance will bring out the action of the rod. While some anglers prefer tapered lines for bass fly fishing, the level line permits long casts and handles well with heavy lures. It is difficult to secure good leaders that are heavy enough where they are attached to the line, so I fashion them from three sizes of synthetic gut testing 8, 10, and 15 pounds. At the end of a day's fishing it is advisable to discard these leaders as they become loggy and frayed. Fly fishing for bass offers an elegant opportunity for the newcomer in the game to practice his ability for the coming trout season.



Courtesy Allentown Call

Milton Rockmaker, Allentown, with 20¼ inch brown trout taken this year on Dorney Park Dam, Cedar Run.

## FISHING BILLS EFFECTIVE SEPTEMBER 1

Senate Bill No. 160 and Senate Bill No. 982 have been signed by Governor Arthur H. James.

These bills make the following changes in the Fish Laws:

Section 20—Taking rock bass from protected class. (No season).

Section 30—Removing size limit on rock bass.

Section 40—Creel limits have been made to agree with rules and regulations as set up by the Board.

Section 53—Net permits. The Board may issue permits to make, sell, or possess nets larger than four feet square or four feet in diameter. Such permits when issued shall specify when and where such nets shall be used by the owner or the persons in possession thereof.

Section 54—Nets unlawful without permit. It shall be unlawful for any person to make, sell, or have in his possession a net larger than four feet square or four feet in diameter without a permit issued by the Board. The possession of a net without a permit therefor shall be prima facie evidence of the violation of this section.

Section 55—Penalty. Any person violating any of the provisions of Section 54 of this Article shall upon conviction as provided in Chapter XIV be sentenced to pay a fine of not less than One Hundred Dollars (\$100.) nor more than Two Hundred Dollars (\$200.) and to undergo imprisonment for a term of thirty (30) days for each violation.

Section 220—Allows residents and non-residents to secure a new license for fifty cents upon affidavit when both the license and button are lost.

Section 251—Provides a penalty of \$10. for each fish in possession contrary to rules and regulations as set up by the Board.

Section 255—Clarifies closed streams section so that Board may prescribe method of advertising.

Section 265—Provides for the taking of baitfish and fishbait on Sunday.

Section 286-289—Provides for the purchase of land and waters by the Fish Commission.

Under the law, these amendments do not become effective until SEPTEMBER 1, 1939.

## NETTING BAIT ON SUNDAY LEGAL AFTER SEPTEMBER

While Governor Arthur H. James has signed Senate Bill 160, legalizing the taking of baitfish and fishbait on Sundays, this bill does not carry an effective date. Any bill passed at a regular session of the Legislature not carrying an effective date automatically becomes effective September 1 of that year.

Numerous inquiries have been received as to the bill, because under the existing law it is illegal to catch minnows by means other than by hook and line on Sundays, despite the fact it is legal to fish on Sundays. It is also illegal to net helgramites or crayfish before September 1, on Sundays.



## LIVE BASS CONTESTS AT IDLEWILD MEET

A crowd estimated at 10,000 was present at Idlewild Park, on July 29, when the annual picnic of the Westmoreland and Allegheny County Sportsmen's Association was held. Enthusiasm ran high in spite of the rain which interrupted activities three times during the day and the gathering was highly successful. It was decided that next year's picnic will take place on July 27.

Numerous prizes were awarded during the day and the competition in all events was keen while onlookers as well as participants seemed to be having a grand time.

Among the celebrities in the sports world who were present were Seth Gordon, director of the Game Commission of the State of Pennsylvania, Ross Leffler, vice president of the Game Commission; Virgil Richards, crack shot of the Remington Arms Company, Connecticut, and John Mock, fish and game editor of the "Pittsburgh Press."

There were many contestants and the rivalry was keen in the fishing events.

Vincent Spiller, of Loyalhanna, who won Event No. 7, Fly Fishing for Bass, by landing an 18¼ inch bass, purchased a new fly rod the day before the picnic especially for use in the event. He borrowed a reel and line from a friend. Mr. Spiller is well pleased with his new fly rod which is still in one hundred per cent condition after landing the big bass.

R. W. (Bob) Hanson, of Loyalhanna, was second, landing a 15¼ inch bass. He used a bucktail frog lure. H. J. Alwine landed a 10½ inch bass to place third.

The Millvale Sportsmen's Club, of Millvale, won the \$75 first prize in the Laurel Hill Trout Nursery event. The second prize of \$25 went to C. H. Thompson, of 420 Todd street, Wilkinsburg.

By landing a 14 inch bass C. H. Lippert won the bass jackpot event and was awarded the \$5.50 prize. No other bass was caught in this contest.

Winners in other fishing events were as follows:

Westmoreland County Novice Event—First, Charles Warrick; second, George Horning; third, C. E. Kimmel.

Allegheny County Novice Event—First, Tony Badal; second, Richard Bretbaugh; third, S. L. McClure.

Five-eighth Ounce Accuracy Event—First, C. W. Ward; second, Karl Breitenbach; third, C. W. Ward; fourth, Val Breitenbach.

Dry Fly Accuracy Event—First, C. W. Ward; second, N. Lang; third, Karl Breitenbach.

Wet Fly Accuracy Event—First, Karl Breitenbach; second, C. W. Ward; third, Val Breitenbach.

Plug Fishing for Bass Event—First, H. Herman (21 inch bass); second, H. Herman (16 inch bass); third, L. Glover (14 inch bass); fourth, W. Neal (12 inch bass).

The following rules were observed in staging the contests:

Only artificial lures may be used in these events and a 25c entry fee will be charged for each event and \$1.00 for four or more events. All bass caught in these events must be released as soon as measured. The fishing

contests are for bass only. A Horrocks-Ibbotson fisherman's loving cup will be given to the caster with the best all around score in the two bait and fly casting events.

EVENT No. 1—Time: 1:00 P. M. (E.S.T.) Westmoreland County Sportsmen's Association members only. Novice event, five-eighths ounce tournament plug accuracy. Fishermen's equipment.

1st Prize—Shannon twin spinner.  
2nd Prize—Johnson silver minnow.  
3rd Prize—Solunar table (Tells best time to fish).

EVENT No. 2—Allegheny County Sportsmen's League members only. Novice event, five-eighths ounce tournament plug accuracy. Fishermen's equipment.

1st Prize—Shannon twin spinner.  
2nd Prize—Johnson silver minnow.  
3rd Prize—Solunar table.

EVENT No. 3—Three-eighths ounce weight accuracy.

1st Prize—Ashaway fishing line.  
2nd Prize—Creek Chub plug.  
3rd Prize—Four fly rod lures.  
4th Prize—Three fly rod lures.

EVENT No. 4—Five-eighths ounce plug accuracy.

1st Prize—True Temper casting rod.  
2nd Prize—Creek Chub lure.  
3rd Prize—Bristol casting line.  
4th Prize—Three fly rod lures.

EVENT No. 5—Dry fly accuracy.

1st Prize—Invincible 18-lb. test casting line.  
2nd Prize—Johnson silver minnow.  
3rd Prize—Bristol casting line.  
4th Prize—Four fly rod lures.

EVENT No. 6—Wet fly accuracy.

1st Prize—Invincible 18-lb. test casting line.  
2nd Prize—Johnson silver minnow.



Ardent anglerette and devotee of the fly rod is Miss Betty Hoch of Butler. She happily displays two Allegheny River smallmouth bass that fell to her casting skill.



3rd Prize—Heddon plug.  
4th Prize—Two fly rod lures.

EVENT No. 7—Fly casting contest for bass only.

1st Prize—Five fly rod lures.  
2nd Prize—Weezel fly rod lure.  
3rd Prize—Heddon plug.  
4th Prize—Sportsmen's ash tray.  
5th Prize—Three fly rod lures.

EVENT No. 8—Plug fishing contest, bass only.

1st Prize—Weezel lure.  
2nd Prize—U. S. casting line.  
3rd Prize—Heddon plug.  
4th Prize—Three fly rod lures.  
5th Prize—Two fly rod lures.

EVENT No. 9—Jack Pot, fisherman's choice of artificial lure and rod, Bass only.

Each entry will contribute 25c toward this jack pot and the fisherman catching the largest bass will receive largest cash award.

1st Prize—50 per cent.  
2nd Prize—30 per cent.  
3rd Prize—20 per cent.

Events 1 and 2 are the only events restricted to association members. All other events are open to any person wishing to enter. Bass fisherman, here is your opportunity to prove the fish stories you have been telling your friends about the big ones you caught, by entering one or all of these contests. Don't forget to bring your fishing license.

C. W. WARD,  
Chairman Allegheny County.

R. W. HANSON,  
Chairman Westmoreland County.

SAM HENDERSON,  
Judge all fishing contests.

CYRUS MOSER,  
Judge casting events.

W. M. DOM, Judge casting events.  
Committee.

## COLUMBIA CLUB STAGES BANQUET

The Columbia County Rod and Gun Club recently wound up its second successful year at a banquet attended by over 350 members. The Columbia boys have been extremely active, and last year helped distribute 115,390 fish from State and Federal hatcheries; reared 207 day-old pheasant chicks to 12 weeks of age; released 6 raccoons and 324 rabbits; purchased a club ground and built a skeet and blue rock layout, etc., Out of its \$1.00 membership 35c is returned to the streams, 35c to the fields, and the remaining 30c is used for the running expense of the club.

During the past winter the Conservation Committee of the club distributed 200 bushels of scratch grain, 5 bushels of buckwheat grain and 32 bushels of corn on the ear. In addition 51 permanent feeding shelters were erected and farmers were enlisted to plant the special feed recommended by the Game Commission. For the future, the club plans a big fishing contest and water-snake control program. The fishing contest is open to all members of the club and every licensed fisherman in the county. The Boy Scouts are being enlisted in the snake control program, and a bounty of 10c per reptile is being offered. Members of the association are identified in the field by a blue Keystone emblem.



Charles Riegal, Lee Garrett and Stanley Garrett of Wernersville with their catch of three wall-eyed pike and five bass made in Lake Wallenpaupack. The largest walleye measured 23 inches.

## REV. KULP ADDRESSES SCHUYLKILL WALTONS

Rev. Darlington R. Kulp, of Reading, State President of the Izaak Walton League, was the guest speaker at the county meeting of the Schuylkill County Chapter of the League held in Mahanoy City on July 18.

State President Kulp delivered a forceful address on conservation, taking the subject from all angles, local, state and national, in respect to all manners of conservation, fish, game and wildlife, stream, forest and farm.

He spoke on the question of organization to combat the various methods of private streams, farms and hunting preserves, and stated that the hunting and fishing was an American youth's heritage, and it should be free for both rich and poor, alike.

He also stressed the urgent need for co-operation in all manners and means of conserving the benefits of the soil, wildlife and aquatic life, and also to cooperate with the farmer and manufacturer in aiding him in his problems so that they may be friends instead of foes to the sportsmen.

In addition to the main speaker short addresses were made by Anthony Boxer, of Shenandoah, representative of the Shenandoah Rod and Gun Club; Blair Egge, secretary of the Frackville Fish and Game Association and secretary of the Schuylkill County Sportsmen, of Pottsville; Leonard Shober, Mahanoy City, deputy game warden; Anthony Lech, Cressona, county fish warden; Roy W. Messerschmidt, president of the Grier City Fish and Game Association; Wilbur Wright, Tamaqua, vice-president Keystone Rod and Gun Club; E. F. Gruber, Mahanoy City Fish and Game Protective Association;

William Thompson, Mahanoy City Rod and Gun Club.

Following the answering of numerous questions pertaining to fish and game conservation by Rev. Kulp, the meeting adjourned with a luncheon prepared by Mrs. Josephine Britz and sons, Louis and Edward.

Dr. William P. Walinchus, president of the Schuylkill County Chapter of the Izaak Walton League, presided, assisted by Edwin Blew, the chapter secretary.

## COMMISSIONER McKEAN OFFERS KIDDIES PRIZE

Fishing by youngsters in the Memorial Park Lagoon in New Kensington was given new impetus in July when a truckload of fish, mainly carp and catfish, arrived from one of the Fish Commission hatcheries.

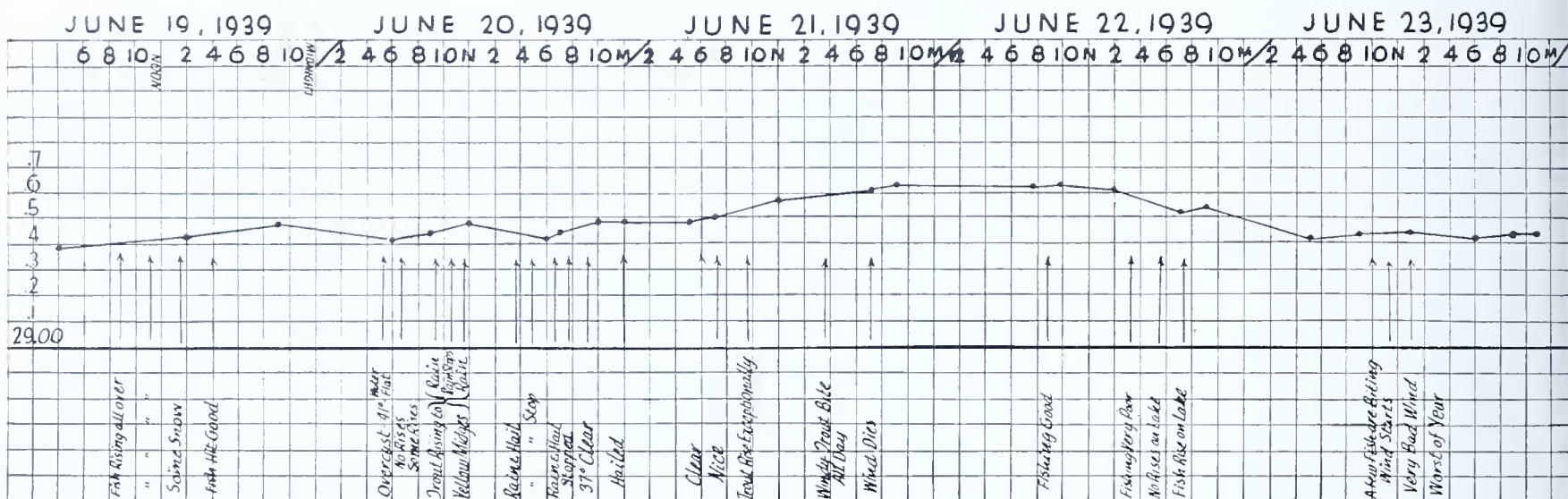
The fish, 2,000 in number, were given several days to become acclimated, and then the junior fishermen—500 were eligible—started casting their lines into the lagoon and began yanking out fish dinners. Those stocked are from seven to 12 inches in length, although several 18-inch fish were also put in.

These fish are all hatchery-reared, and the flesh is perfectly clean and fit to eat, so that parents need have no worry on that score.

Fred McKean, member of the Pennsylvania Board of Fish Commissioners and an enthusiastic backer of the project said that he will offer a prize to the boy or girl catching the largest fish in the pond by the end of August.

A completely equipped rod and reel will go to the young angler. Only requirements is to follow the rules in force at the lagoon, and to have the fish weighed and measured by the officer in charge.





FIVE DAYS AS IS - FROM ORIGINAL COPY - WAS INTENDED FOR PERSONAL CONSUMPTION ONLY

SET BAROMETER AT 29.55 (ESTIMATED) IN MAY

1 SQ. VERTICAL = .1 INCH

1 SQ. HORIZONTAL = 2 HOURS

THE DOTS = READING AND TIME

M = MIDNIGHT

N = NOON

## 80 Days Barometer Fishing

(Continued from Page 12)

arouse their gastric juices. Remember—this lake looks like an over-grown Eastern rearing pond to me—there are that many trout. Yet the spinner and worm guys pass like it were a spoiled fillet. Say it's all fished out. Such is the point of view.

If you are a 24 hour fisherman go ahead—you will no doubt hit them sometime. If you like the maximum of fun, concentrated, then watch the barometer. If you get the urge to prove me wrong—try it—I did. It left me with both shoulders pinned. So much for 80 consecutive days of barometer fishing.

## BRETH NOW ON STAFF OF SUN-TELEGRAPH

We know thousands of ANGLER readers who have been enjoying his splendid articles in this magazine will welcome the news that Harris G. Breth of Clearfield, Penna., has been chosen by the Pittsburgh Sun-Telegraph as Out-door Editor. Harris is now editing the column "The Great Outdoors".

The ANGLER feels sincerely that Harris is particularly adapted through his wide knowledge of outdoor conditions to carry through a mighty fine conservation column and extends to him every good wish for success with the Sun-Telegraph.

## THANKS, BILL

It certainly is gratifying to the ANGLER to receive such fine expressions of goodwill toward this magazine as this one from William Burke, Girardville sportsman.

"I have received the PENNSYLVANIA ANGLER for the past three years along with three other leading sport magazines and let me tell you, the ANGLER tops them all. Not only does it contain interesting photos but it keeps me posted on the splendid work being carried on by the Board of Fish Commissioners and various sportsmen's clubs. I say 'hats off' to the PENNSYLVANIA ANGLER."

## FISH STOCKING REPORT HEARD AT "R" MEETING

Members of the R Field and Stream Association of Lebanon county met in their regular session with more than one hundred members attending the gathering in the regular meeting hall on North Fifth street, Lebanon.

Among other committee reports was the report of the fish committee which announced that 70 cans of trout had been received by the local association and had already been distributed. Eighteen cans of brown trout were dumped into tributaries of Hammer Creek, while 52 cans of rainbow trout were distributed in Bachman's Run, Mill Creek, Indiantown Gap and Snitz Creek.

It was decided to incorporate the local association and a committee was appointed to arrange for the incorporation proceedings. Membership buttons will be purchased and distributed among the members in good standing and it was also decided to accept an offering of a number of silver carp for stocking purposes in Stoevers Dam.

The organization also decided to build a number of wildlife feeders and to distribute them throughout Lebanon county before the end of the fair weather season.

An important decision reached at this meeting was to offer prizes to the fishermen who report and register their catches for bass, pike and sunnies in Lebanon county this season. The awards, of course, will be presented to the anglers landing the largest of each species and recording their specimens at the Albert Langdon store on North Tenth street, Lebanon. The members quickly passed that motion and their enthusiasm indicates plenty of interest in the contests thus to be encouraged.

President Dave Groy presided at the session and Secretary Thomas Nagle handled his customary duties for the meeting.

## FISH AWARDS AT LYCOMING DINNER

From S. Dale Furst, Jr., Secretary of the Consolidated Sportsmen of Lycoming County, comes word that the organization's annual banquet was extremely successful, with 685 members and guests present. Movies and fine addresses by Major Biddle, President of the Game Commission, Seth Gordon, Director

of the Game Commission, Samuel Truscott, Member of the Fish Commission, John C. Youngman, President of the State Federation of Sportsmen's Clubs, Richard E. Bishop and others featured the dinner.

The following winners in the fishing contest conducted last year were announced.

Brook Trout, B. G. Grasso, English Center Length, 14-1/3 inches, taken on a wet fly brown trout, John Maggs, 353 Hastings St., Williamsport, Length 24 inches, weight 1 1/2 pounds; brown trout, 2nd, Harry Kolb, 401 Lincoln St., Williamsport, length 20 1/2 inches caught on a Finn No. 10; brown trout, 3rd, Ralph L. Seitzer, 349 East Third St., Williamsport, length 20 1/4 inches, caught on a grasshopper; Rainbow trout, Mrs. A. A. Metzger, 64 Maple St., Williamsport, length, 14 3/4 inches, caught at Halway Dam on a Hendrickson Fly; Smallmouth bass, G. E. King, 1700 East Third St., Williamsport, length 20 1/2 inches, caught on a crayfish; Smallmouth bass 2nd, George Baier, 1819 W. Southern Ave., South Williamsport, length 20 1/4 inches caught on a stone catty; Smallmouth bass 3rd, Ray H. Rentz, 1103 West Third St., Williamsport, length 19 3/4 inches, caught on a plug; Walleyed Pike or Susquehanna Salmon, Mrs. George DeCubber, Sherman St., Williamsport, length 29 inches, weight 7 1/2 pounds, caught in Loyalsock Creek at Far ragut; Walleyed Pike or Susquehanna Salmon, 2nd, S. J. Schultz, 22 W. Lincoln St., South Williamsport, length 26 1/2 inches weight 5 1/2 pounds, caught on a Susquehanna Spinner and night crawler; Walleyed Pike or Susquehanna Salmon, 3rd, Leo Smith, 226 W. Third St., Williamsport, length 25 1/2 inches, weight 6 pounds 7 ounces, caught on a plug; Pickerel, Charles George, Jr., 234 Linn St., Williamsport, length 23 1/2 inches weight 2 pounds 13 ounces, caught on a minnow and Brook Trout, George White Newberry, length 14 1/2 inches, caught on a minnow.

## FISH ARE INSENSITIVE TO PAIN

Fish suffer little if any pain when hooked for there are very few nerves about the jaw which cause that sensation, according to the United States Bureau of Fisheries. Trout have been known to be hooked two or three times in the same day—the fishermen using the same type of bait. This would seem to indicate that hooked fish suffer little more than a temporary sense of discomfort or are decidedly absent-minded.



## QUILLBUGS

(Continued from Page 5)

and you) may serve to relieve the resulting nervous strain but they do not serve at all to prevent cement or plastic from hardening beyond redemption. Therefore, be intelligent rather than imaginative, and lay out your tools and material, at least temporarily, where they will be instantly available.

In the construction of the floating grasshopper, a quill is mounted and sealed just as previously described. When the tail is sealed, a little excess plastic is left extending from the tail end of the quill which is then pinched into the shape shown in Figure 6.

The head end of the quill is simply sealed off and left for the present, as the head is the last part of the bug to be constructed. The next step is to form the saddle shaped collar of the hopper; this is called the "prothoracic shield" by entomologists but that need not frighten you. Spit on your fingers, dig out a bit of plastic wood and roll it into an oval pill. Flatten it well and wrap it around the head end of the mounted quill as in Figure 6. Now, while still soft, with a small knife blade or similar tool shape the edges of the rear end of the collar as shown in Figures 6 and 8-A. When finished, that is, its upper or longest point, should occupy about one-third of the quill length. Pinch up the top edge of this collar to form a blunt ridge as in Figure 8-A. When dry, which should be in about 2 hours, this part if not quite the right shape may be whittled to correct it. Then it should be rubbed perfectly smooth with the finest garnet or sandpaper. As the body will not be accessible for painting after the legs and wings are applied, the next operation is to paint the body. For this purpose a little chrome yellow, hooker's green No. 1 and sepia, tube colors, are required. These should be applied with a small soft brush of sable or camels hair. The color should be mixed with a small amount of spar varnish and thinned with turpentine to render it easily workable. First, paint the tail or belly of the hopper yellow and allow it to dry before painting over it to indicate the joints of the body which may be done with the sepia into which is mixed a little of Hooker's green. The collar or front part may be painted with the same. Set the body aside to dry perfectly and proceed with the construction of the hind legs. The foundation for these is made of the shafts of rooster hackles dyed scarlet. The barbs of the hackle are carefully trimmed off until it looks like figure 6-C. Just enough of the barbs is left attached to the shafts to represent the spines on the hopper's legs. For this purpose a sharp pair of curved manicure scissors is the best tool as care must be taken to avoid injuring the hackle shaft. If the hackle is held in a good light over a sheet of white paper while operating on it this helps a lot. The trimmed part of the shaft should be about two and one-half times the length of the hopper's body measured along the top of the back. The thigh of the hopper may now be attached to the base of the shaft. This is made of plastic wood of the kind that comes in a can because this is easiest to work. Dig out a small portion of this and roll it with the wet fingers into an egg-shaped pill as in figure 6-a. Then, placing it on a flat surface—a pane of glass is fine—roll it under the damp

finger with slight pressure as shown in figure 6-b. Lay the base of the hackle shaft on it lengthwise and press the plastic nearly flat as in figure 6-c. Now fold the plastic over as in figure 7-a, press it together and roll under the finger until it again assumes the carrot shape of 6-b. Then flatten it slightly as in 7-b and lay by to dry and harden fully. When finished it should approximate the shape shown in figures 9 and 9-b. When fully hard, the **inside** lower third of each leg should be whittled concave to fit the convex sides of the body as indicated in figure 9-a. The size of the hind legs should be just long enough to reach from its place of attachment to the tip of the tail of the body. The point of attachment is plainly indicated by the small circle low down on the sides in figures 6 and 8. By this time the paint on the body should be dry enough to permit the attachment of the wings. These are made of feathers and for this purpose the tail feather of a turkey dark brown in color, or the tail feathers of the golden pheasant are excellent. Cut out two pieces from opposite sides of the feather so they match in color pattern. These should be long enough to reach from the hind edge of the collar to a point just behind the tip of the tail as indicated in figures 8 and 9. Trim the front ends of the wings to fit snugly against the collar edge. Place a large drop of cement on the body where the wing is to go and also on the inside of the wing base. Wait a few seconds for the cement to partly set. Then press the wing base against the cemented body and adjust the wing so it just reaches the top edge of the belly. Repeat the operation on the opposite side and see that the wings meet at their top edges but do not overlap. Trim the tip ends round and evenly as in figures 8 and 9 and then put the hopper by until the cement on the wings has firmly hardened. In case the kind of feathers mentioned are not available any brown mottled feather of proper texture will do very nicely. After the wings have set and the hind legs are properly hardened it will be time to attach them.

First be sure that the legs have been hollowed out as shown in 9-a. Then apply cement to the concave portion of one leg and to the side of the body where the leg is to rest. Wait a few seconds for the cement to partially set and then press the leg against the body in the desired position. Hold it there and apply under the base of the leg and on the belly of the hopper, a very little plastic wood and press it firmly against the leg base. Now attach the opposite leg in the same manner and set the whole thing by overnight, to harden. Until this occurs no attempt should be made to bend the knees of the legs as otherwise they may become detached.

The operation of putting a permanent bend in the knees is a simple one, as follows: First, make two little loops of fine wire as in figure 9-b. Number 30 copper radio coil wire is about the right size, but any fine malleable wire will do. Then carefully bend the leg just above the tip of the thigh as shown in 9-b and slip one of the wire loops over the knee and downward until the shin of the leg assumes the desired position. Now take a pointed wire or coarse needle and dip it into water-proof cement and place a drop of this on the knee joint. When this hardens it will hold the leg firmly and permanently in the

position it is set. Repeat this operation on the opposite leg and this operation is complete. The shins should be the exact length of the thigh and, when allowance is made for the feet, the excess hackle shaft may be trimmed off and the feet bent to the position shown in 9-b. Of course, the position of the legs shown in the illustration may be varied but it is a natural one. The four front legs may all be attached at one operation as follows: Cut two pieces of bare hackle shaft, each twice as long as the legs will be when finished. Lay these across each other in the form of an "X" and place a drop of cement at their junction. Then place a similar drop on the chest of the hopper where the legs are to go and lay the crossed hackle thereon. Take a pill of plastic with the wet fingers and placing it on the crossed legs press it firmly to hold them in place. When hard they will remain firmly attached.

The last structural operation is the building and attachment of the head, which is easy. Roll another little egg-shaped pill of a size slightly larger than you wish the head to be, put some cement on the front end of the body and apply the plastic egg to this place. Pinch a sharp ridge down the front of the head as shown in figure 9-c and you have the head practically finished. The feelers, made of bristles from an old tooth brush, are simply dipped first in cement and their dipped ends then pushed into the still soft plastic of the face. The proper position is shown in figure 9-c.

The only thing to be done now is the painting of the legs and head which should not be attempted until they are thoroughly dry. The thighs are yellow with brownish markings and the head greenish brown above the yellow base.

Now you have a grasshopper that is complete in detail, except the hop. This you must supply with your fly rod—but if you have been simply reading instead of working, spit on your fingers and go to it!



Look at 'em! says Sonny Munson as he displays 16 crappies and bluegill sunfish taken in Conneaut Lake by Game Protectors Schmid and Miller and his dad on July 3.



## CAPITOL SPORTSMEN HOLD BIG OUTINGS

Chilly weather failed to cool the exuberance with which hundreds of sportsmen tackled programs of entertainment and skill at picnics of the Harrisburg Hunters and Anglers Association and the Keystone Sportsmen's Association reports Mike Seaman.

Probably the busiest men were Executive Director of the State Game Commission Seth Gordon and Leo A. Luttringer, editor of "Pennsylvania Game News," who divided their time by visiting both picnics.

General Chairman Chalmer "Chink" Moore arranged a program in which hunters and fishermen found much to test their skill at the H. H. and A. A. stag affair. The picnic site was the Harrisburg Gun Club grounds above West Fairview.

The Harrisburg club's five-man trap team defeated a quintet of scattergunners from the Mechanicsburg Sportsmen's Association by shattering 97x125 to the loser's 84x125 clay birds.

On the winning team were Clyde Fox, Louis Kunkel, Barney Motter, Don Bailey and President Ray Watkins. The Mechanicsburg team consisted of Charles Fox, Elwood Straub, John Ritter, Samuel Conrad and Harry Drawbaugh.

Fish-O got its initial try-out in this section in an amateur and a pro bait casting contest. Bruce Brubaker, Ray Goudy and Don Bailey placed one, two, three in the Simon pure event. Lambert Miller, Charles Fox and Prexy Ray Watkins were one, two, three in the pro division. First place winners were awarded bait casting lines, second placers got landing nets and the third place men were given a bait casting lure.

Because of a nasty wind the fly casting event was called off.

In the 25 bird Lewis Class target shoot Roy Walker won the A division with a per-

fect score. E. M. Alleman was second. Walker's prize was a spotting scope; Alleman's a fish weighing scale.

B Class was won by A. B. Laudermilch and Elwood Straub placed second. They won field glasses and a fish line respectively. A Mr. Rohland and a Mr. Schlosser broke enough saucers to place one-two in the C division. They were awarded a flashlight and a dozen flies.

In addition to these official contests small bore pistol and rifle shots had full privileges of the range to test their marksmanship.

The Keystoneers made their affair open to the distaff side. It afforded the boys a chance to give the wife or sweetheart an intimate listen-in on what sportsmen talk about when their "hair is down."

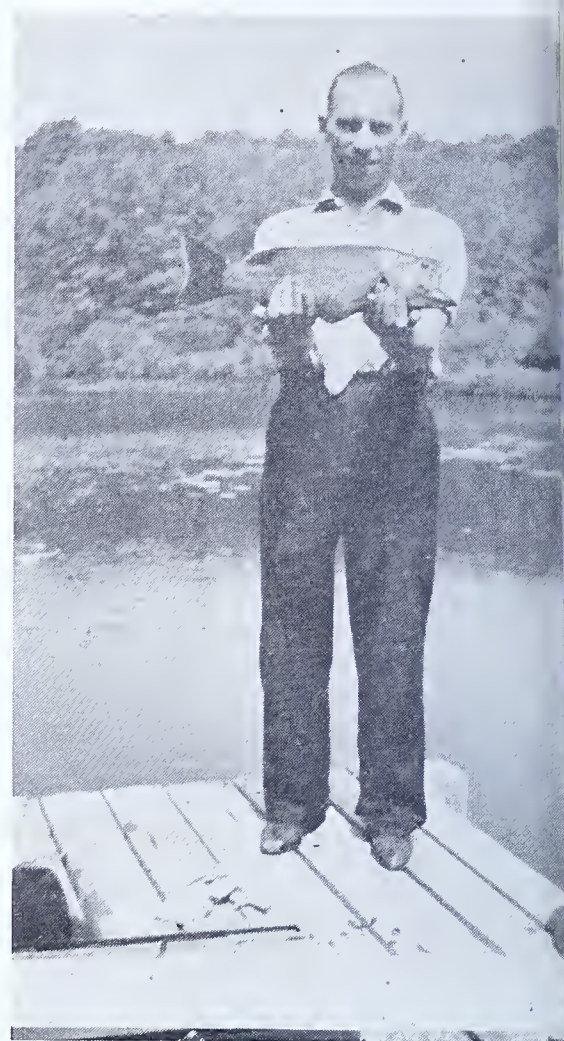
Of particular interest was the display of mounted wildlife shown by Harry Gardner.

The committee in charge consisted of General Chairman Walter L. Snokes, Charles Kohler, entertainment committee; John S. Dye, social and food; with William E. Rutherford as coordinator of all committees. President J. Allen Barrett is to be congratulated for the fine turnout at the frolic at the West End Republican Club's home tucked in the woods at the base of the mountain north of Harrisburg.

## URGES ARTIFICIALS

Bass fishing so far this season has been far from its best, with no outstanding specimens or really large catches being made. The season is way below par and probably will not be good until August or September, comments Dave Fisher in his column Sports Trails in the "Selinsgrove Times."

In several trips to Penn's Creek the writer has found that forage has been very poor and it behooves you to use more artificial



This 20 inch smallmouth from Lake Wallenpaupack was taken on a minnow and weighed 4½ pounds. Lucky angler is Bill Burke of Shenandoah.

lures if you want to see good bass fishing in the future.. This same condition prevails on many other streams.

You can have more fun with artificial lures than you can with live bait and you have the knowledge that you are doing your bit toward conservation and making the fishing better the next time you go out. You absolutely can catch just as many and just as large fish on the artificials as you can on live bait. Try it.

## RUTLEDGE WINS CASTING HONORS

Daniel Rutledge romped off with first place honors in the Class "A" accuracy division and distance event in the first fly casting tournament conducted at Buchanan Park, Lancaster, under the auspices of the Lancaster County Fish and Game Association.

Rutledge scored 491 points and was closely followed by Horace Pyle, of Coatesville, Fish Warden for Lancaster and Chester counties. Pyle amassed 490¼ points. Richard Sullenberger took third place honors with 489¼ points with Harry McMichael next with 481¼ points and Garvin Ross, fifth, with 389 points.

Rutledge also displayed skill when he walked away with the distance event. In this event the three best casts were:

	Feet	Inches
Daniel Rutledge .....	69	4
Garvin Ross .....	68	½
Harry McMichael .....	61	9½

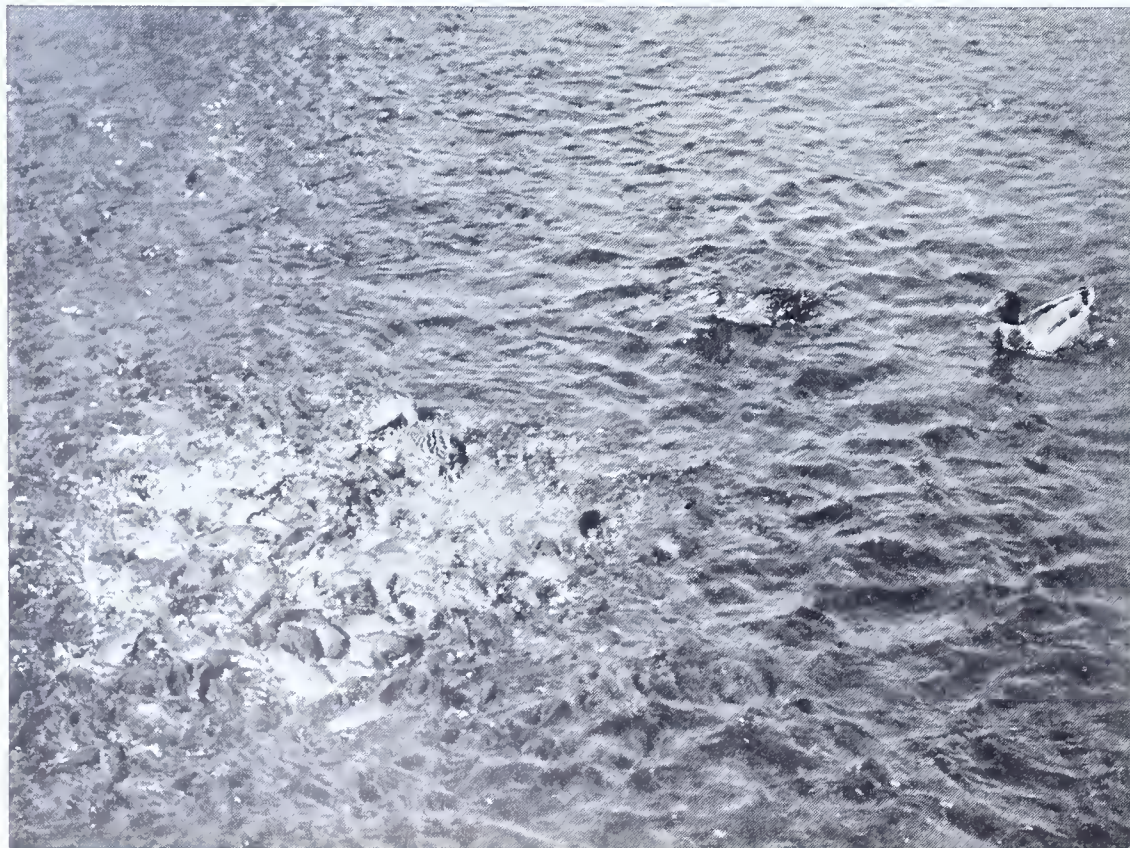
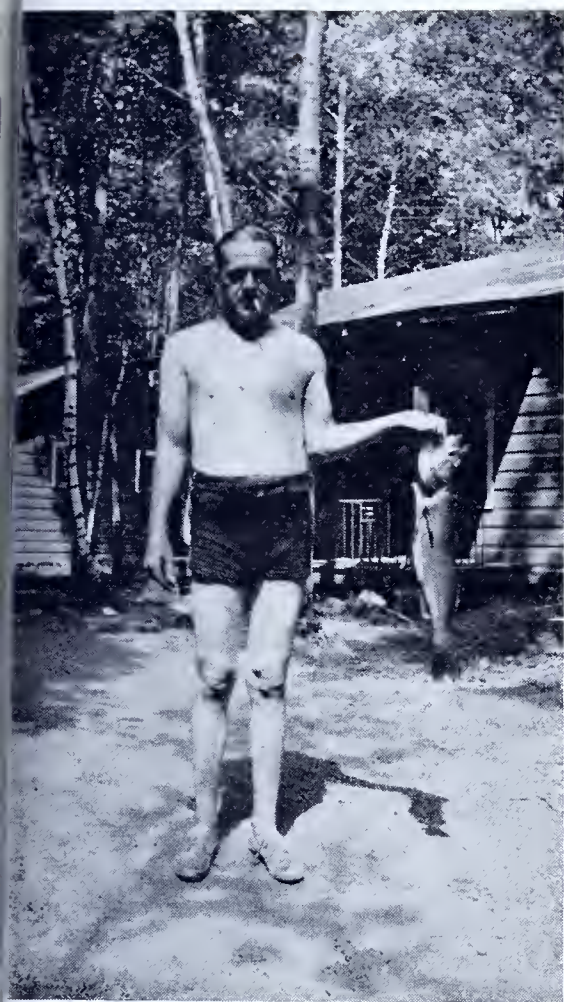


Photo by Gordon Kreible

Here's a "Believe it or not" backed by a photo. Carp in the spillway at Pymatuning Reservoir churn the surface for bread tossed to them and, clambering atop the fish is a wild Mallard duck.





Fishing the spinner and nightcrawler combination, F. H. Therlacker of Philadelphia caught this fine wall-eyed pike in Lake Wallenpaupack early this season. Length 27½ inches, weight 6¼ pounds.

## CASTERS COMPETE AT HARRISBURG

Close competition marked the fourth annual Fly and Bait Casting Tournament sponsored by the Harrisburg Department of Parks and Public Property in cooperation with the Harrisburg Hunters' and Anglers' Association on July 29. Held at Italian Lake, the tournament attracted over 100 anglers who vied for a splendid assortment of prizes.

Following were the winners in the various events:

**Dry Fly Casting for Accuracy**—First, Arthur Clark, Philadelphia, 19 points; second, H. P. Wagner, Lebanon, 14 points; third, James Smith, Palmyra, 9 points.

**Wet Fly Casting for Accuracy**—First, Russell Skinner, Palmyra, 39 points; second, James Smith, Palmyra, 36 points; third, Charles K. Fox, Harrisburg, 27 points. (Note—Russell Skinner and James Smith tied for first place with 30 points each. Cast-off won by Skinner).

**Fly Casting for Distance**—First, Russell Skinner, Palmyra, 86-2/3 feet; second, James Smith, Palmyra, 72-1/3 feet; third, Arthur Clark, Fox Chase, 67-2/3 feet.

**Bait Casting for Accuracy**—First, Charles K. Fox, Harrisburg, 36 points; second, Ray Watkins, Harrisburg, 31 points; third, Lambert Miller, New Cumberland, 27 points.

**Bait Casting for Distance**—First, Arthur Clark, Fox Chase, 160-1/3 feet; second, Robert McFadden, Harrisburg, 160 feet; third, R. F. Hall, New Cumberland, 146-2/3 feet.

**Dry Fly Casting for Accuracy**—First, Don Carey, Harrisburg, 15 points; second, Elwood DeChamplain, Camp Hill, 13 points; third, Charles Sanders, Camp Hill, 6 points.

**Wet Fly Casting for Accuracy**—First, Russell W. Melton, Harrisburg, 27 points; second, W. R. Rhubright, Camp Hill, 21 points; third, Lambert Miller, New Cumberland, 18 points. (Note—Russell W. Melton and W. R. Rhubright tied for first place with 21 points each. Cast-off won by Melton).

**Fly Casting for Distance**—First, Lambert Miller, New Cumberland, 64 feet; second, Charles Sanders, Harrisburg, 62 feet; third, William Durr, Holmesburg, 55-1/3 feet.

**Bait Casting for Accuracy**—First, J. C. McFadden, Jr., Harrisburg, 19 points; second, Bruce Brubaker, Harrisburg, 14 points; third, R. H. Goudy, Harrisburg, 9 points.

**Bait Casting for Distance**—First, J. C. McFadden, Jr., Harrisburg, 127-2/3 feet; second, M. L. Brown, Harrisburg, 123 feet; third, the Rev. D. C. Means, Harrisburg, 103 feet.

One of the features of the meet was a casting exhibition given by Arthur Clark of Fox Chase.

## The Vanishing American

(Continued from Page 3)

have caught your first bass, you will be a confirmed fly fisher. Thousands of anglers have given up bait for the fly, but I know of no instance where the opposite proved true.

Trout streams are also suffering from a steady and continual drain on such live bait as the fish fly larvae, the water crickets or stone fly nymphs, and the caddis worms or peddlers. All of these immature stages are vital to the future of our fish life, and the alarming pace of their disappearance directly affects every fisherman. The carrying capacity of both trout and bass streams is measured by the amount of natural food in them, yet practices are condoned that reduce this carrying capacity, year after year. No streams can stand up under such a continual drainage. The writer believes that it is only a

matter of time until the people awaken to the alarming state of affairs, and will then have passed legislation whereby it will be unlawful to remove from the public water any aquatic life for use as fish bait. We would all be better off for such legislation, and it would definitely mark the beginning of a forward conservation movement that could only result in what we are all striving for, that is, more and bigger fish in our waters.

## URGE PROPERTY CARE AT MUNICIPAL DAM

Members of the York-Adams County Game and Fish Association at a meeting in the Pennville Fire Company hall decided to take some action on conditions relative to the fishing at the Hanover Municipal Water Works impounding dam in West Manheim township. The sportsmen agreed that unless more care in preserving cleanliness along the highway adjacent to the water works property is exercised by fishermen who have engaged in angling at the bridge end of the dam, the association will cooperate with the Hanover Municipal Water Company to prevent any fishing in these waters.

Members of the association have investigated conditions and reported at the meeting the negligence of fishermen in defacing the property with paper and other waste materials. Unless these practices are immediately discontinued the association will take definite steps to close the waters to any and all fishing. The association feels that good sportsmen will do their utmost to keep the property in excellent condition.

The following committee was appointed to arrange for a club stag party and also the annual club picnic: George Hartman, William Spangler, Leo Martz, Louis Mummert and Henry Dubs. The dates of both affairs will be announced in the near future. The association, it was announced, will conduct a membership drive continuing until October 1.



Beautifully marked and heavy was this 23¾ inch brown trout taken in a quarry hole in Berks county by Hubert Miller, Wernersville. It had a girth of 13½ inches and weighed 5 pounds 14 ounces.



## Fish-o versus Tournament Casting

(Continued from Page 7)

from every walk of life. They hailed me with grins and a hearty welcome. For two days I hung around watching them practice, then for another four days I watched them compete for honors. Until then I don't believe I had ever cast a fly more than an honest 80 feet in my life. After I got back



Jack Sparks casting  $\frac{3}{8}$ ths ounce plug 372 feet.

I found myself casting 100 feet with ease. By the end of October I had whaled out a few 150's. Several weeks ago I slammed out a couple 150's. And I'm no kid anymore. My knees are stiff. I've got flat feet and my wind is broken. But, dawgone, I learned how to cast!

Take a leaf from my book, young feller, and visit the nearest casting club or fish and game association, most of which go in for casting these days. If there's none in your neighborhood start one. You'll be delighted at the friends you make, surprised at what competition will do for you. You'll get twice as much fun out of your fishing. Believe it or not you'll get more fish and you'll return more to the water unhurt.

Its not all of fishing to fish.

## FARMERS, SPORTSMEN COOPERATE; BUILD DAMS

Two dams on Mudlick Creek near Patton have been completed by the Patton sportsmen and farmer friends. The dams were washed out in the St. Patrick's Day flood of 1936, when sections of the breasts of both dams gave way. With excellent water, the sportsmen hope to have the dams stocked with fish and the Fish Commission will be asked for advice and assistance. The sportsmen seek to place bass, pike and perch in the dams. Robert Miller, president of the sportsmen, was authorized to contact Charles A. French, commissioner of fisheries, in regard to the stocking program.

Reconstruction of the dams was accomplished without monetary outlay. One farmer donated use of a tractor for two weeks and others donated scoops, trucks and other construction tools. The Patton Clay Manufacturing Company donated more than 50 feet of terra cotta pipe for drainage of the dams. The largest of the two dams is known as the Carver Dam.

The Patton sportsmen announced that 600 brown trout were stocked recently in Slate Run and Chest Creek.

## BANKER OF HUNTINGDON IS FEDERATION DIRECTOR

Election of Maurice L. Banker [popularly known as "Doc"] of Huntingdon, as chairman of the south central district of the Pennsylvania Federation of Sportsmen's Clubs has met with wide approval on the part of sportsmen in the central counties. Extremely active in conservation affairs, Banker is particularly well fitted for membership on the state board of Directors of the Federation, a position which he automatically assumed when elected chairman.

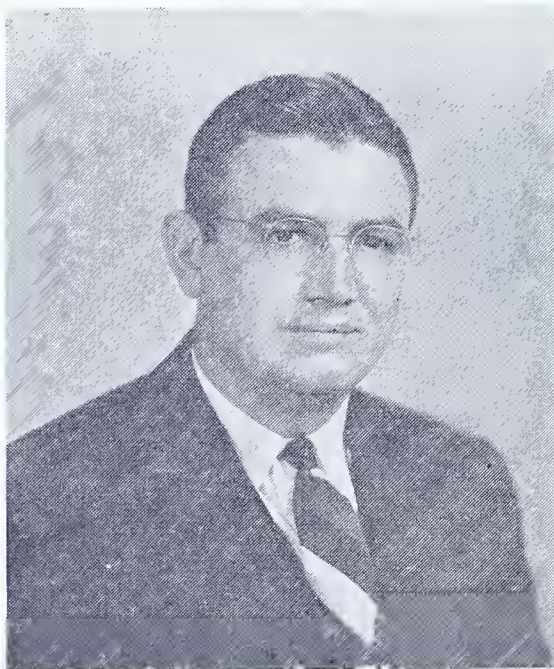
The election was held at the Penn-Alto hotel in Altoona and was attended by delegates from all sections of the district which includes the six counties of Blair, Fulton, Bedford, Cambria, Centre and Huntingdon. Banker was the delegate from the Huntingdon County Federation of Sportsmen.

Dewey Miller of Bedford was named vice-chairman at the district meeting and Dr. R. D. Anthony of State College was elected secretary-treasurer.

Banker succeeds Merrill Merritts of Altoona who vacated the position after he was elected vice-president of the state Federation.

The new district chairman has been very active in the Huntingdon County Game, Fish and Forestry Association. He is chairman of the Huntingdon County Federation and chairman of the Huntingdon county association's membership committee. In the latter position he has been very active in signing up new members in the sportsmen's association.

The Pennsylvania Federation of Sportsmen's Clubs is the largest organization of its kind in the state. It boasts over 600,000 members. It works in cooperation with the game



Pa. Game Comm. Photo.

DR. MAURICE BANKER

commission and many of the recommendations made by the Federation are enacted by the game commission.

At the Altoona meeting recommendations were made by the delegates as to bag limits and seasons. These recommendations will be presented to the state organization by Banker for consideration.

The Huntingdon County Game, Fish and Forestry Association was reorganized five years ago and since that time it has had a rapid growth. Harold Fisher is president of the group at the present time.

## HEMPFIELD MEETING ATTENDED BY 250

The second regular meeting of the Hempfield Farmers' and Sportsmen's Association was held at the Landisville Fire House with more than 250 farmers, sportsmen and their families in attendance.

A few moments prior to the regular meeting the board of directors met to question the suggestion to have the first year's membership fee carry over to September 30, 1940. This was put before the meeting as a motion and carried by the vote of the members unanimously.

The regular routine business was in order after which the president, W. J. Staley, appointed two committees.

The first was the entertainment committee consisting of Daniel Fackler, chairman; Everett Martin, Levi M. Piefer, Christian Herr and Ralph Myers.

The other was the publicity committee consisting of George A. Shenck, chairman; Donald Kellon and J. Earl Way.

Alan Wiker, president of the Lancaster County Federated Sportsmen, gave a short talk on the value of associations and associations' meetings.

Horace A. Pyle, district fish warden, gave an interesting talk on the trout restocking program for local streams. Pyle also pointed out the many improvements made by the State in hatching, raising and trucking game as well as other species of fish.

Other sportsmen's groups who were present and called on for a few words were: Jerri Vogel, Mt. Joy Sportsmen's Association; Walter Fink, Manheim Sportsmen's Association; Nevin Stauffer, Columbia Fish and Game Association; and Daniel Raley and Walter Gible, Lancaster County Fish and Game Association.

Milton Dietrich, deputy game warden of Lancaster county, gave a few notes of value and interest after which the principal speaker of the evening, John M. Haverstick, Lancaster county game protector, was introduced by President Staley.

Haverstick gave an enlightening talk on all phases of the hunting sport, touching on the value of cooperation of the farmers and sportsmen.

He also gave an idea just how the state game is distributed by the various protectors throughout the state.

Letters from the Fish and Game Commissions were read by the secretary, J. Earl Way.

## CARP BAIT RECIPE

Two large sized potatoes, one-half teaspoon salt, one tablespoon corn meal, wheat flour and sufficient cotton to give it the proper consistency.

Peel and grate the potatoes, mix all the ingredients together using sufficient wheat flour to make a stiff batter. Roll into balls about the size of a fifty-cent piece, drop them in boiling water and boil until they float.

In baiting the hook these balls should be cut in pieces in proportion to the size of hook used.



## CAMBRIA SPORTSMEN HOLD BIG OUTING

More than 4,000 people attended the first annual Field Day of the Cambria County Sportsmen's Association held in the Ebensburg Fairgrounds. Great interest was manifested in the various events. John U. McFadden, president of the association, expressed himself as being well pleased with the interest shown in the event and declared that the organization would repeat the outing next year.

One of the features was an exhibition of trick shooting by Fred Soisson of Hastings. The dog show, held in the arena, probably attracted the largest crowd of the day. Dr. Harry J. Bennett captured three prizes, his Dr. Puff taking two and Alice Girl, one in the pointer class.

Soisson with a perfect 100 score won the Cambria county skeet shooting championship. C. Albert Evans of Ebensburg was the runnerup with a score of 97. Tony Zugates of Indiana was second high man with a score of 99 in the open shoot, Soisson's 100 beating him by one point.

Dr. H. B. Anderson of Johnstown was high man in Class B, having a score of 93. John U. McFadden of Ebensburg was runnerup in this class with a score of 82. Other scores in the championship shoot follow: William Owens, Ebensburg, 96; Ed Dufton, Clearfield, and Paul Hornick, Johnstown, 95 each; A. L. Smith, Johnstown, 74; Anthony Macindo, Moss Creek, 65; Duke Rosensteel, Ebensburg, 56 and Melvin Edwards, Ebensburg 51.

In the 25-bird match, Jim Heilman, Indiana, Brown, Barnesboro, won Class B, with a won Class A with a score of 25. George score of 21. Dr. Harry J. Bennett, Ebensburg, captured top honors in Class C with a score of 15.

During the contests, the regular match of the Allegheny Mountain Skeet League between Indiana and Ebensburg was run off, with Ebensburg winning by a score of 237 to 234. Ebensburg scores were Soisson, 50;



Karl Kesel, Superintendent of Johnstown schools, is an ardent fly tyer and conservationist.

Owens, 49; Evans, 48; J. Thompson, 47 and Bolsinger, 43. Indiana scores were Zugates, 49; Dufton, 49; J. Heilman, 47; N. Heilman, 45 and C. Heilman, 44.

Ira Bloom, Ebensburg, was high in the test shoot, .22 caliber rifle at 100 yards, while Leo Oswald, Conemaugh was second and B. W. Caldwell, Johnstown, was third.

The off-hand shoot contests at 50 yards were won by V. D. Smith, Fred Soisson, Leo Oswald, H. Shankle and Carl Broad.

Virgil Richard, Pittsburgh, arms expert, was an interested spectator at the contests and declared they were among the best he has witnessed.

The results of the dog show judging follow:

Pointer, show greed, male—Dr. Puff, Dr. Harry J. Bennett, Ebensburg; female—Alice Girl, Dr. Bennett.

Pointer, show breed, male—Dr. Puff, Dr. Bennett; female—Madcap High Baby, E. C. Stineman, South Fork.

English Setter, field breed, puppy—Duke, W. E. Anuck, Johnstown; male—Halifax Dick, Dr. E. M. Carter, Johnstown; female—Troxell's Bell, J. Boyd Troxell, Mountindale.

English Setter, show breed, male—Sylvan King, P. A. Adams, Altoona; female—Queen, George Bills, Hastings.

Irish Setter, show breed, puppy—Troxell's Red Flash, J. Boyd Troxell, Mountindale; female—Dawn, A. H. Goyne, Ebensburg; male—Buddy, T. A. Criste, Cresson.

Irish Setter, field breed, puppy—Lady, Al Brandt, Dean.

Cocker Spaniel puppy—Josey, Mrs. D. T. McGill, Hollidaysburg; male—Black Jack, J. Montonovi, Altoona.

Springer Spaniel, female—Daisy Snaps, W. A. Kongle, Altoona; male—Sarazen, Dr. P. P. Stake, Mt. Union.

Beagle Hounds, show breed, 13-inch, male—Chest Creek Sport, Milt Maurer, Colver; female—Dillon's Pride, Robert Strain, Colver. Fifteen-inch, puppy—Kid Boy, W. B. Pascoe, Johnstown; male—Roamer, Dick Dillon, Patton; female—Marian, Robert Strain, Colver.

Beagle Hounds, field breed, 13-inch, puppy, Rascal, W. B. Pascoe, Johnstown; male—Toiler, Binder and Stevens, Hastings; female, Queen, W. B. Pascoe, Johnstown. Fifteen-inch, male—Donald Dinney, Robert Strain, Colver; female—Marian, Robert Strain, Colver.

Children's pet, long-haired—Penny, Mrs. J. W. Newcombe, Altoona; short-haired, Christian MacTavish, E. C. Stineman, South Fork.

First place in the coon dog trials final was taken by those owned by Earl Paden of Holsopple. Fred Metzgar of Johnstown captured top honors in the final line event.

The fly-casting contest entered by 27 fishermen was won by Bert Nipps of Ebensburg, who made 90 points out of a possible 100. Iona Edwards Thompson of Ebensburg captured the women's casting event with a score of 74 out of a possible 100.

Homer Williams of Coopersdale, former state horseshoe champion, won the horseshoe contest which was staged by the Coopersdale Horseshoe, Hunting and Fishing Club. Lester McCreery of Barnesboro, was second and Joe Bowser of Coopersdale, third.

## VETERAN BERKS ANGLER FISHES ON CRUTCHES

Bass fishing is tops as sport for Elwood Mathias of Lenhartsville, Berks county, according to Warden W. E. Wounderly of Reading. Born and raised along his favorite stream, Maiden Creek in Berks county, Elwood, whose nickname is "Stecker", does his fishing on crutches. Writes Wounderly:

"I have enclosed this photo of Elwood Mathias of Lenhartsville, who tells me that bass fishing in Maiden Creek is as good now



Elwood Mathias of Lenhartsville with two Maiden Creek smallmouth bass, 20 and 19 inches in length respectively.

as it was when he was a young lad. On this photo, Elwood is holding two smallmouth bass caught in Maiden Creek near Lenhartsville. One measured 20 inches in length, the other 19 inches.

"It might be well to call your attention to the fact that Elwood's nickname is 'Stecker'. He only has one leg and he wades the Maiden Creek on crutches. On more than one occasion I have seen him in the headwaters of Lenhartsville Dam in water up to the pits of his arms and hanging onto his crutches. He is a member of the Lenhartsville Rod and Gun Club and a real conservationist.

"On the day that he caught these two bass he returned quite a number, up to 14 inches in length, to the stream. After he had taken these two bass, he quit fishing for the day, saying 'I am going to let the other fellow have a chance'.

"On the day that he caught these two bass, John Ott, Proprietor of the Lenhartsville Hotel was with him, but John did not catch a fish of size sufficient to take home."





## HERE AND THERE IN ANGLERDOM



Speaking of big snapping turtles, consider the dimensions of this reptile: Length from tip of nose to tip of tail—22 inches; width of shell—11 inches; length of shell—15 inches; weight 35 pounds. This snapper was shot by Robert Madore of Bedford.

Word comes from Carl Thomas of Dormont that excellent sport in fishing for blue pike in Lake Erie was enjoyed late in July. Anglerette Betty Thomas, he informs the ANGLER, was appointed "first mate" on the "Little Skipper" owned by Capt. Gidge Smith of Erie and caught more blue pike than anybody else in the party.

One of the finest smallmouth bass reported to date was that taken on the Raystown Branch of the Juniata River by Norman Bonsel of Woodvale. Warden Link Lender, who reported the catch, said that it measured 21 inches in length, weighed 5 pounds, and was taken on live bait. Here's another item in Lender's report that drives deep home the fact that a good supply of crayfish is vital to bass fishing in any water: "I think the Frankstown Branch of the Juniata River is the outstanding bass stream in this section, as the fishermen are sure catching a lot of bass. The bass taken from this stream are very heavy and fat and this is due to plenty of food. I find there are more crayfish in the Frankstown Branch than in any other stream in this section".

Clinton McCaulley of Bellwood, Blair county, is mighty anxious to know just what hit his line while he was fishing in the Juniata River near Ardenheim late in July, according to Warden Link Lender. According to the facts presented, Clinton had such a violent strike on his line that he was pulled off the ledge on which he was standing and was forced to let go the rod. Two fishing companions made a try at retrieving the rod but it hasn't been heard of since that time.

Members of the York County Chapter of the Izaak Walton League and the York Kiwanis Club are strongly back of a plan to stock Kiwanis Lake at York with fish, thus providing a place in which under privileged children will have the opportunity to fish. J. Harold Coffman, President of the Waltonians, told City Council in York recently that Governor Arthur H. James had been informed of the plan and had given it his approval.

Relative to the taking of a 37½ inch carp weighing 18½ pounds, a picture of which appeared in a recent issue of the ANGLER, Walter B. Horton of Martinsburg, RD., writes: "My pal and I were fishing for trout in Clover Creek. We fished this stream to where it empties into the Juniata River below Williamsburg. After putting two large nightcrawlers on the hooks, we set out lines in the river while we ate lunch. After lunch, while I was enjoying a smoke, my line started for parts unknown. I set the hook and the battle was on. For 30 minutes I played the fish. Finally got it into shore but my trout net was useless on this fish and to make matters worse, the shore had a 3-foot slope down to the water. However, my pal got into the stream and threw the carp on shore. My outfit at the time consisted of a light bamboo rod, light line and 6 pound test single gut leader". CONGRATULATIONS, Walt, on a skillful bit of playing and landing this fish!



John Quinn and son of Matamoras with their catch of 10 yellow perch scored in Twin Lakes, Pike county. The perch had a total weight of 10½ pounds.

One hundred percent fly fishermen are the Jermyn anglers now staging a contest for bass honors, writes Floyd J. Waters of Jermyn. "We cater to fly fishermen only", he writes, "One of the boys who happened to miss getting in the club has already produced a smallmouth bass 20 inches in length and 16 inches girth, taken in Sly Lake, Wayne county. We recognize entries taken on the fly rod only (with artificial lures) and hope to see the day when trout and bass will be taken in this manner and no other." Following are members of the club: Clyde Coleman, Bob Allan, John and Stanley Chima-husky, Ed. Stuart, Rev. Costello, Keith Seymour, Claude Roberts, Dr. Finegan, W. J. Baker, Leo Moskovitz, Jimmie Powers, Bill Rosemergy, Joe Leputa, Steve Pelack, Floyd Waters, Hank Hockaday, Walter Kennedy, Jimmie Mullally, and Floyd Battenberg.

Landing a 28 inch wall-eyed pike weighing 5½ pounds on a light fly rod was the feat accomplished in the Delaware River on July 29th by Albert Fox of Easton, according to Warden Frank Brink of Milford.

Varied catches have been made to date by Bedford county anglers, according to word received from Warden Harry Moore of Bedford. Charles Lloyd of Bedford scored a catch of 6 suckers and two fall-fish ranging in length from 15 to 18 inches and having a combined weight of 15 pounds. A fine large-mouth bass, 19½ inches in length and tipping the scales at 4½ pounds was taken on plug in Lake Gordon by Kenneth Arnold of Bedford. A fine catch of trout was scored with fly on Yellow Creek, Bedford county, late in the trout season, by Samuel Beeler of Hope-well. His catch ranged in length from 11 to 15 inches.

Sunfish, catfish and carp were removed from Egelman's Dam by members of the Berks County Chapter of the Izaak Walton League under the direction of Warden W. E. Wounderly of Reading on July 29-30. An estimated 10,000 of the fish were removed and stocked in Bernhart's Dam, Tulpehocken Creek and other public fishing waters in Berks county. Other streams stocked included the Manatawney and Maiden Creek. In removing the fish, the Waltonians were preparing to receive a large assignment of fish from Federal Hatcheries. The dam was recently leased by the chapter for five years and will serve as a nursery project.





## Improvement?

Once I chanced when I was roaming  
On a glade, as sweet and charming  
As when it had been created,  
All forgotten and unspoiled.  
There I walked mid scented pine gloom,  
On a carpet of soft needles.  
Saw the trunks like giant pillars,  
Lift the arched green roof above me.  
Heard the breeze among the branches,  
Like the tones of mighty organs.  
While the deep and reverent twilight  
Made me think of grand cathedrals.  
There a spring with sandy bottom,  
Bubbled from beneath a boulder.  
Gray and aged, crowned with lichens.  
Round it grew wood fern and mosses.  
And the rosy lady slippers  
Mingled their exotic perfume  
With the incense of the pine trees.  
Tiny warblers gayly colored,  
Came and drank of the cold water.  
Mixed their cheerful low toned voices  
With the rippling of the water.

Now the charm is gone forever,  
For a road runs through the valley.  
In the woods are picnic tables,  
Graveled paths lead up the mountains.  
Hot dog stands and dance pavilion,  
Squatting there among the pine trees.  
Blare of jazz and noisy laughter,  
Drown the music of the water.  
All the showy lady slippers  
Have been plucked by thoughtless vandals.  
Littered food and scraps of paper,  
Take the place of pretty warblers.  
Now instead of pitch pine odors,  
Comes the smell of **burning rubbish.**

A. G. SHIMMEL.





SEPTEMBER IS AN ACE MONTH  
FOR WATERSNAKE CONTROL..

Do Your Part *Help Check*  
*This Fish Predator!*



# PENNSYLVANIA ANGLER



ROCK BASS

OCTOBER 1939

TEN CENTS

P38.51  
1.6  
0.2



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## EDITORIAL

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# KILL THE WATERSNAKE!

WITH the abnormally low water prevailing in many sections of the Commonwealth, there has been brought to our attention more than ever before, the serious damage the watersnake is doing to our streams.

Unfortunately, low water has made it possible for the watersnake to be much more destructive than in previous years, as his operations are confined mostly to the small pools which have been created by the existing low water. Trout waters have been the most seriously affected, and might I suggest that a special effort be made for the removal of this natural foe to good fishing?

Much credit is due the various sportsmen's groups, Boy Scouts, and others who have put on vigorous campaigns in their communities, with the result that thousands of these predators have been taken from our waters.

Organized groups are more effective, and if you have not been active—contact the nearest Fish Warden, or the Harrisburg Office, and you will receive every assistance.

An appropriate bronze medal, inscribed "Junior Conservationist" is awarded those under 19 years of age for killing ten (10) or more watersnakes. Applications are available at the Offices of the Board of Fish Commissioners, Harrisburg, Pennsylvania, and must be certified to by some local sportsman's group or warden.

By doing your part, you will be very definitely improving the fish habitat which will mean for better fishing next year.

  
Commissioner of Fisheries



# Sealing Abandoned Bituminous Mines as a Means of Reducing Acid Stream Pollution

by

RUSSELL M. ZIEGLER and J. A. UNDERWOOD  
Department of Forests and Waters

**W**ITHIN and bordering the Sproul State Forest District are many small streams. The West Branch of the Susquehanna River passes through the District. The river and the feeding tributaries were renowned in bygone days because of the large number of timber rafts and the millions of feet of lumber, in logs, that were floated to market in these waterways. They were also noted for the numbers and size of fish and aquatic life they contained.

Before the lumber industry waned new ones came to this territory, the most outstanding being that of mining Bituminous coal. With these operations came one of the Commonwealth's major problems, stream pollution. It not only affected the river but also the lower reaches of many of the larger tributaries. The pollution, mostly acid, killed the fish as well as the aquatic plant and animal life on which they depended for food.

Bituminous coal, one of man's greatest aids, was found in varying quantities within this district. Although most of the better veins of coal have been removed, there is still considerable mining activity in this area. Most of it is carried on by small groups and on a small scale.

Large scale operations such as those carried on by the Kettle Creek and Kato Coal Companies were discontinued about 1929. The mineral rights were formerly worked by the Kettle Creek Company, were sold to the



One of the most picturesque streams in Pennsylvania and popular with anglers is the Loyalsock Creek in Clinton county.

Department of Forests and Waters in 1930. The lands of the Kato Company were conveyed to the department in 1930 but the mineral rights, formerly worked by the The Lehigh Valley Coal Company has ex-

tensive holdings in this territory but their activity is declining.

The coal acquired by the Department is being removed by private operators on a royalty basis. All during the depression years these operations have provided local people with work and a livelihood, keeping them off the Welfare rolls.

As a result of the mining carried on in the Sproul District and the fact that many areas are no longer economical to work, many deserted mines with their shafts, tunnels, air shafts and cave ins, dot the area. Some of these mines are dry and some are filled with water.

The mines which are filled with water are the cause of most of the acid stream pollution in the territory. Sulphuric acid which is the agent responsible for damage to minor aquatic life and fish comes from coal mines active or abandoned, in the water which drains as is pumped from them.

Coal varies in sulphur content which is contained in iron sulphite or pyrite. Iron pyrite is also found in slate, slag or bony, which bounds it. Thus there is an abundance of it inside the mine and in the slag piles which are the result of the operation.

The pyrite or iron sulphite undergoes chemical changes "Oxidization and Hydrolysis" when in the presence of air and water. The products resulting from these chemical reactions are sulphuric acid and iron oxide which around the mines is known as sulphur mud. It is the latter compound which causes the discoloration of the stream bed.



West Branch of the Susquehanna River near Hyner, Clinton county. A beautiful view but no prize for the fisherman.



Most of the stream pollution in this district originates in abandoned mines. Those having water in them throughout the year are much more troublesome than those containing it only during the rainy seasons. Many mines that had been dry are now wet, because underground streams drain into them and surface water enters the cave-ins.

The small active mines in the district are in most cases dry, and if an underground stream is encountered, the cost of pumping in many cases raises the operating expense to such an extent that the enterprise is discontinued, causing new sources of acid pollution.

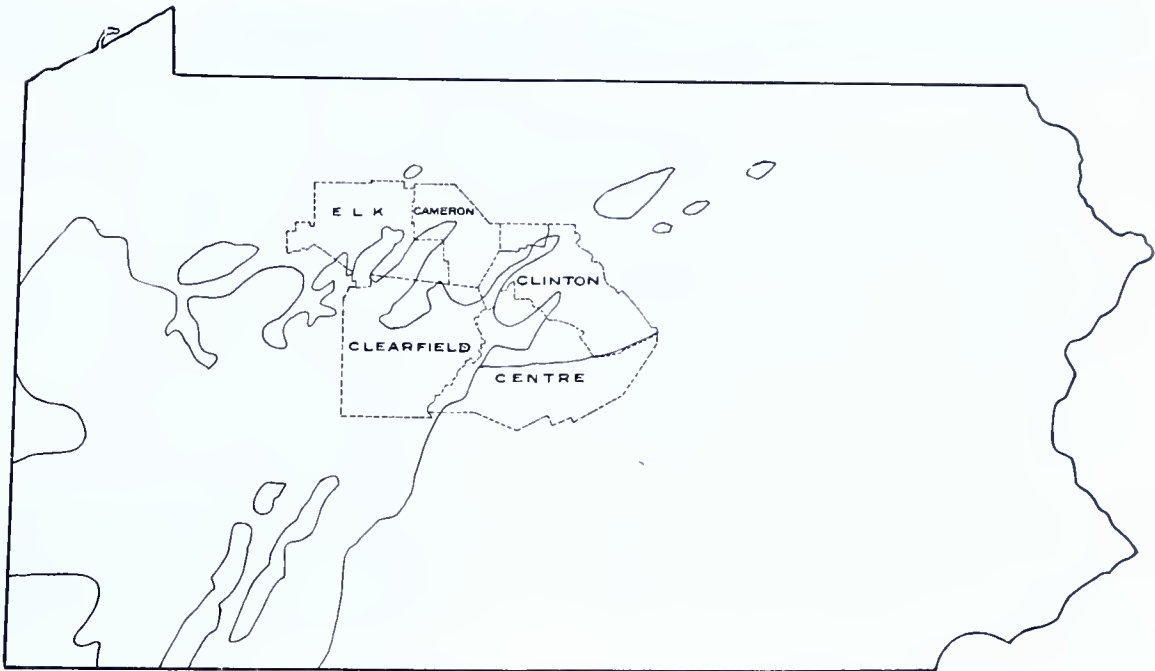
The larger companies when troubled with water try to reduce the acid content of it by preventing the circulation of air so as to reduce the maintenance cost of the pump equipment.

Sulphuric acid is very active and will destroy many things, except certain metals. Near mines from which acid water originates, and along the courses of streams, all vegetation has been killed, plant life is absent except green algae.

The barren appearance of the streams caused by the lack of plant life and the yellowish or reddish brown color due to the iron oxide is anything but pleasant to see. Even the river into which the small streams flow has its bottom colored similarly and vegetation is absent near the water's edge where the current is not strong.

The effect of acid pollution is not merely confined to the absence of plant life in the stream. Communities farther east along the river which use the water for domestic purposes are confronted with the problem of removing the excess acid present particularly during dry periods.

The acid will not settle out of the water in stilling pools nor can it be removed by filtering because it is in solution and not suspended as is the case with most other



The five-county area in which mine sealing has been carried out.

forms of pollution. The only way to remove it is to treat the water with an alkaline substance such as lime or soda.

It is possible to reduce the chemical reaction responsible for the sulphuric acid content of mine water at least 50% and in many cases much higher. To do this, all openings to the mines must be sealed to prevent air from entering and thereby reducing the amount of water emptying into them.

In 1933, with the aid of the C.W.A. one of the first attempts to seal abandoned mines in this State was instituted in the vicinity of Kato, Clinton county on the watershed which is drained by Beech Creek. This project was sponsored by the Clinton County Fish and Game Association, which received financial assistance from the Pennsylvania Fish Commission and Department of Forests and

Waters. The results were not immediately apparent. After nine months the water of Beech Creek was tested and was found to be five-tenths parts in a million alkaline and at that time all acid sources had not been sealed, due to the fact that mines in that territory were still operating.

The work of sealing mine openings was later taken up by the WPA, sponsored by the Department of Health. The goal set up was to seal all abandoned mines in this district. It is required by an Act of Legislature, May 7, 1935, P.L. 55 that the consent of the owner of the mine must be secured before the work is carried out. In most cases the owners willingly cooperated with the agency conducting the work.

The first type of seal installed was a concrete wall which was erected a short distance in from the mine opening where the surroundings were intact. The wall was air and water tight and was known as the impound type. It was found impractical as the sealed water seeped around the wall, thus allowing air to enter, and in some cases the pressure of the water became so great as to break the wall.

Another type of seal (Figure one) for these wet openings was devised and installed. A masonry wall was erected of native stone and a terra cotta pipe was inserted at its base. This pipe drains into a masonry catchment basin on the outside, the pipe being so installed that its beginning and end are always under water. This type of seal keeps the water level as low as practical within the mines and prevents air from entering at that point.

Where heavy rock formations are present in dry shafts, two masonry walls approximately 12" thick are erected about 18" apart, and the space between them is filled with clay. As settlement takes place, this seal becomes air tight.

The other space such as air shafts, emergency exits, cave-ins, and crop falls which do not have water issuing from them are dynamited shut. After blasting, the earth is re-worked by hand so as to be compact and as air and water tight as possible.

Around cave holes ditches are constructed  
(Continued on Page 22)

TABLE ONE

County	Extent of Sealing		Major	Openings Sealed	
	Complete	Incomplete		Minor*	Total
Cameron .....	8	1	90	1620	1710
Centre .....	32	3	352	9215	9567
Clearfield .....	12	48	489	10731	11220
Clinton .....	5	3	34	716	750
Elk .....	9	4	26	85	111
TOTAL .....	66	59	991	32367	33358

\*Cave-ins, air shafts, etc.

TABLE TWO

ACID REDUCTION IN LBS. PER DAY  
As of July 1, 1938

COUNTY	Progress	Original Test	Last Test	Reduction	Total Exact Measurement	Reduction*Total Reductions	Stream Discharge Susquehanna River
Cameron,	Complete .....	1316	318	998	1436	200	1636
	Incomplete .....	450	12	438			
Centre,	Complete .....	57934	11658	46276	46515	5000	51515
	Incomplete .....	244	55	239			
Clearfield,	Complete .....	145924	39685	109838	112388	25000	137388
	Incomplete .....	2880	331	2549			
Clinton,	Complete .....	22080	8638	13442	22120	1700	23820
	Incomplete .....	16226	7588	8678			
Elk,	Complete .....	1491	439	1052	1146	500	1646
	Incomplete .....	219	125	94			
*Estimated					183605	32400	216605



# PROPAGATION OF BAIT AND FORAGE FISH

By HENRY C. MARKUS

Assistant Aquatic Biologist, United States Bureau of Fisheries.

Courtesy - U. S. Bureau of Fisheries

THE propagation of bait in small artificially constructed ponds, or in natural ponds of limited area, is a simple task, and, with proper management, will provide a supply of bait that will justify the expense of construction and maintenance. The facts and methods cited are intended as a guide to persons who wish to rear their own bait.

Bait dealers, as well as the general public, are becoming aware of the scarcity of forage fish in our inland waters. Old-time dealers, who in early days were kept supplied with minnows from our natural waters, are now complaining of the ever-dwindling supply of live bait. They are compelled to go long distances, seine for long and laborious hours and then often return with a small and inferior catch. It is also realized that the constant taking of minnows from our streams and lakes has not only reached the point where bait minnows are hard to get, but their scarcity is beginning to have an adverse effect upon game fish. Forage fish constitute the greater portion of the diet for our game fish and it is apparent that the depletion of game fish in our waters will discourage the angler so that the bait dealer is slowly losing his business.

Dealers who propagate their own bait, preserve the natural food supply in our waters for the game fish, and, in addition, they provide the angler with a better-conditioned bait. This better quality of bait is supplied by having the minnows at hand in their natural home, thus eliminating crowded conditions in the holding tank. Rearing ponds become holding tanks as well as a source of supply, and the transporting of minnows from distant streams, in crowded cans, is unnecessary.

## Description of Minnows

Minnows are a group that belong to a definite family of fish known as *Cyprinidae*. There are other species of small fish, such as the mud minnow and brook silverside, be-

longing to other families, that are used as bait. However, the *Cyprinidae* family contains the greatest number of bait species. A minnow is not just any small fish, as many people believe, nor is it the immature stage of some game fish. With the exception of a few species they seldom exceed a length of 10 inches. The best field character, to determine a minnow from a game fish, is the fin on the back. This fin on the true native minnow is soft, short, and has no spine. There are, however, other fish that have soft fins on their backs such as the suckers, whitefish and trout. The fin on the back of the minnow is shorter than that on the sucker. The back fin is composed of rays, or supports, that hold it up. Our native species of the minnow family do not have more than 10 divided rays in their back fin.

Trout, whitefish, and other members of the *Salmonidae* family have a second fin on the back. This is a small, soft, fatty fin known as the

back, which is absent in the minnow family. It is soft, fatty, and is situated between the tail fin and the larger back fin.

## The Ideal Minnow

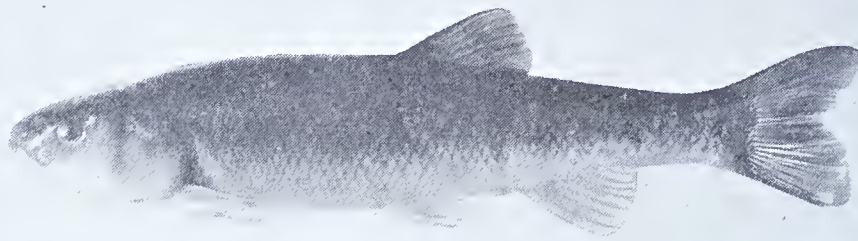
A good bait minnow must be active and hardy on the hook, and be able to withstand adverse conditions in the bait pail and holding tank. The brighter the coloration, the more attractive fishermen believe it to be to game fish, because the highly colored minnows may be seen for greater distances. This color may be a shade of yellow, red, green, or brown, or it may be of a silvery hue. The golden shiner (*Notemigonus crysoleucas*), horned dace (*Semotilus atromaculatus*), common shiner, (*Notropis cornutus*), and redbfin (*Notropis lutrensis*) have become famous for bait because they possess the above qualities. In addition to the above-named species, there are other minnows that possess these qualities, such as the round shiner (*Ilybognathus nuchalis*), red-bellied dace (*Chrosomus erythrogaster*), blunt-nosed minnow (*Hyborhynchus notatus*), black-head minnow (*Pimephales promelas*), and stoneroller (*Camposotoma anomalum*). The carp, which is not indigenous in our waters, should not be used for bait, due to the danger of further distribution of this fish.

## Best Species to Propagate

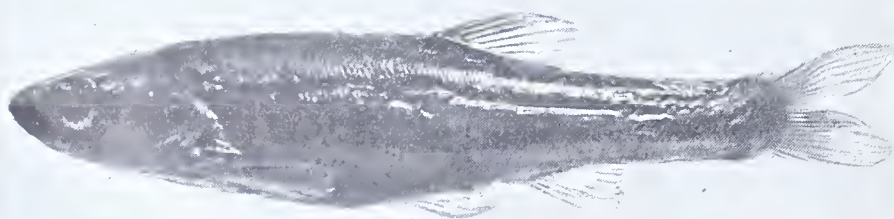
To select a species of minnow for propagation it is first necessary to determine what desirable species are native to the locality. For example, the redbfin is native to the Southwest. Native species will usually do better than imported species. There are a few that are native to all sections of the United States except the West coast. The golden shiner, horned dace, and blunt-nosed minnow are examples. They are among the best bait minnows.

## Minnows Popular Among Bait Anglers

In the fall of 1934 the Bureau of Fisheries sent a questionnaire to all chapters of the Izaak Walton League asking the anglers in



Horned Dace (*Semotilus atromaculatus*)



Red-bellied Dace (*Chrosomus erythrogaster*)



the league to name the bait minnow each liked best. The following is the order of preference: Golden shiner, horned dace, common shiner, mud minnow, and the blunt-nosed minnow. Detailed instructions for the propagation of these fish are being presented, with the exception of the mud minnow. The author has had no experience in the propagation of this species and was curious as to why so many anglers chose the mud minnow. It has never been recorded that they were taken in sufficient numbers in any body of water to give them prominence among bait fish. Specimens of mud minnows were requested from some of the anglers who chose this species. Upon receiving the specimens it was found that they were not mud minnows, but young *Amia calva*, commonly called bowfin, dogfish, or grindie. The use of the young of this predacious species for bait is absolutely unwise, since they are extremely voracious and take a heavy toll on the more desirable species of game and food fish.

**Commercial Propagation of Minnows**  
**Water Supply**

Springs are the most desirable water source since they provide a constant supply. If the springs supply more water than is necessary to keep up the level in the ponds, part of the water should be bypassed. Only enough water should be used to keep a constant level. A large flow of spring water going into a pond will keep the water in the pond cool and wash the fertilizer and natural fish food from the pond through the overflow. If three or four ponds are built in series, enough water may flow through the first ponds to keep up the level in the last pond,

and this will tend to raise the temperature of the water. Many species of minnows increase their growth rate with a rise in water temperature from 70° to 90° F.

The tapping of creeks and rivers provides another excellent water supply. Whatever the source, all that is necessary is to have a supply large enough to keep up the water level in the pond.

**Pond Construction**

The construction of ponds must be planned in the light of available water supply and the contour of the land. They may be built by excavation or by throwing up dykes, or

both. These methods require a great amount of labor and are often expensive. The damming up of a small creek valley into a series of ponds often makes an ideal set-up. The watershed, however, should not be too large, or flood waters may wash away the ponds and the fish will be lost. If there is a large watershed the ponds may be built by the side of the stream, and just enough water to keep up the level in the ponds may be piped by gravity from upstream. The pond farthest upstream may serve as natural spawning grounds for minnows like the common shiner. If the ponds are built in a

(Please turn Page)



Bluntnose Minnow (*Hyborhynchus notatus*)

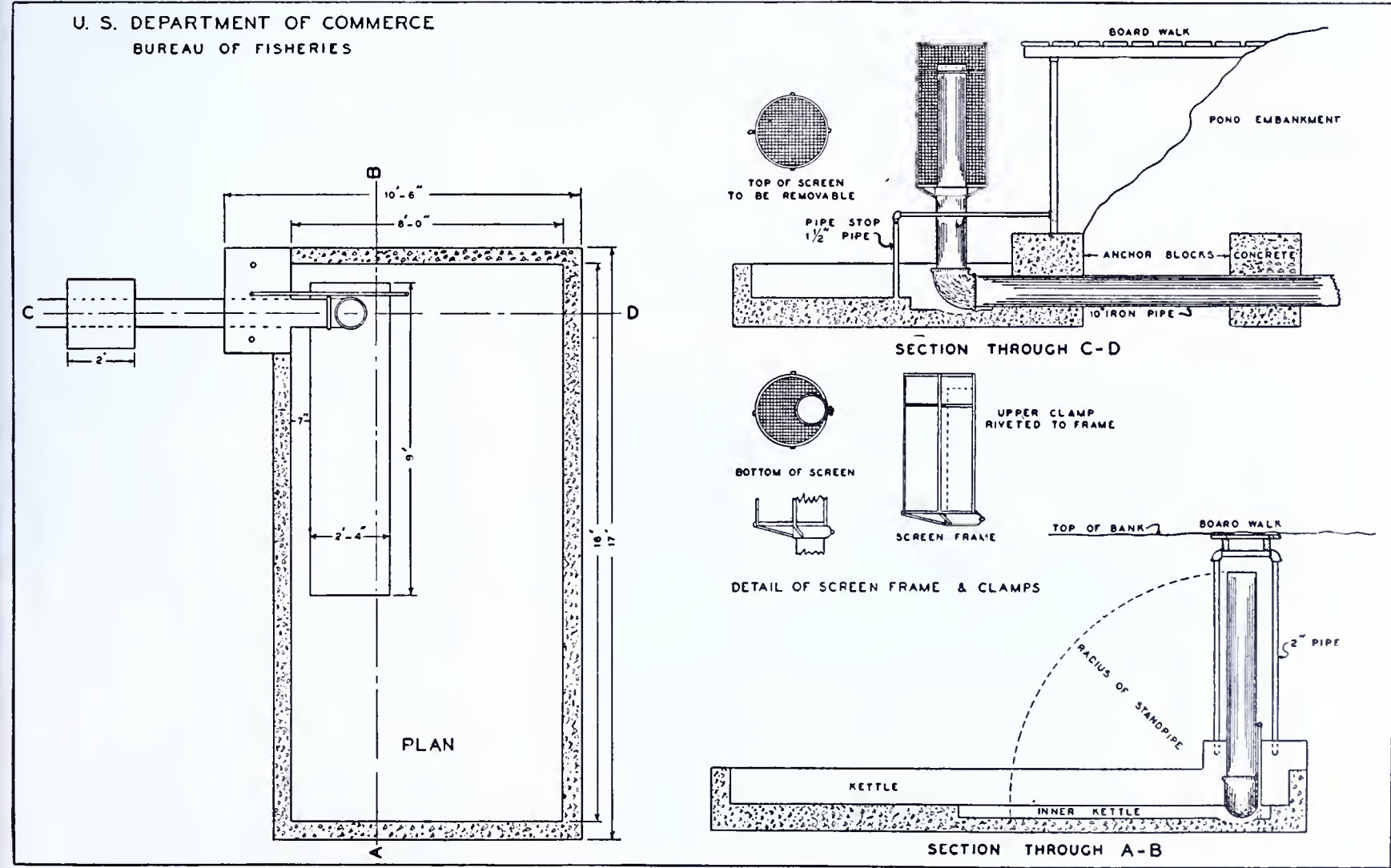


FIGURE 1.—Plan of Canfield "L" outlet and kettle.



small creek valley, the watershed should not be cultivated. Rain will wash the bare soil down into the ponds and roil the water. Rolly water is detrimental both to fish life and to the natural growth of fish food. The watershed should be covered with a heavy grass or close-growing hay, or be forested. The fallen leaves of plants and tree decay, and the organic matter is dissolved and carried to the ponds by rainwater. This organic matter serves as food for the aquatic plant and animal life upon which the minnows feed. In fact, organic matter acts as a fertilizer, and it is just as necessary to fertilize water to get a good growth of fish as it is to fertilize soil to increase land crops. A forested or otherwise covered watershed will prevent rapid run-off during rainstorms and protect the ponds and fish from flood damage.

### Size of Ponds

Ponds may be of any size or shape. A pond 25 feet wide by 75 feet long will yield a good production of minnows. However, the ideal pond is from  $\frac{1}{4}$  to 1 acre in area. If they are much larger they become unwieldy. Several small ponds are more satisfactory than one large one. They should be 1 foot deep at the shallow end and slope to a depth of 4 or 5 feet at the deep end. All ponds must be constructed so that they may be drained, since this is a primary requirement for good pond management.

The type of outlet depends upon the amount of water coming into the pond. If the water supply is limited an upright pipe outlet is best, for it is more conservative of the water. Dam boards are not entirely satisfactory, for it is difficult to keep them from leaking. If there is floodwater to contend with, the catch-basin type of outlet is most satisfactory. Outlets must be screened and the screen of this type of outlet does not clog easily.

### Suitable Types of Aquatic Vegetation

The presence of aquatic vegetation is essential for the propagation of minnows. Some of the best types of pondweed vegetation are as follows: Unicellular algae, filamentous algae, water milfoil (*Myriophyllum*), pondweed (*Potamogeton*), waterweed (*Elodea*), hornwort (*Ceratophyllum*), and Chara. Some of these plants should be established in ponds

before minnows are introduced. Such species as golden shiners and redbins deposit their eggs on vegetation. A part or all of these types of vegetation may be collected in any section of the country from marshes, shallow lakes, ponds, and slow streams. These plants should not be collected from fast-running streams, for varieties that occur in fast water often will not do well in ponds.

One of the above types of vegetation, known as filamentous algae, should be present in every minnow pond. This plant is green in color. It is slimy to the touch and is made up of minute green threads. It is often found floating on the surface of the water in various-sized patches. It may be on the bottom of the pond with long strands reaching up to the surface. On bright days the greater portion is usually found floating on the surface, but during the night, or on cloudy days, it usually sinks to the bottom of the pond.

### Excess Vegetation

An important function of aquatic vegetation in a pond is to supply oxygen for the fish. Plants take up oxygen and give off carbon dioxide just as animals do. But, in addition to this process, they absorb carbon dioxide and give off oxygen. The latter

action occurs only in sunlight. Consequently, during the hours of sunlight, enough oxygen is produced in a properly balanced pond to supply the respiratory needs of the animals and plants. If there are too many plants in a pond they will compete successfully against the animals for oxygen during the hours of darkness, when no oxygen is being given off. In ponds choked with algae the fish will be found early in the morning, before sunrise, gasping at the surface for air. This nearly always happens after a cloudy day. Under such circumstances the surviving fish act normally as soon as the sun comes out and the plants again begin to photo-synthesize the pond's oxygen. Therefore, only one-fourth of a pond's area should be planted with vegetation, and plant growth should not be permitted to exceed this amount.

### Food Supply

Minnows feed directly on aquatic vegetation, especially the filamentous type of algae, and the horned dace, which has a varied diet, has been grown to a length of  $2\frac{1}{2}$  inches during a single summer on a purely vegetable diet. Game fish do not feed heavily on aquatic vegetation. Because of the fact that minnows subsist largely on algae, its presence is important both in natural waters and in minnow ponds. This algae is transformed into game fish food by the minnows. Minnows eat aquatic vegetation and game fish eat the minnows. *Aquatic vegetation is just as essential to game fish as green pastures are to man.*

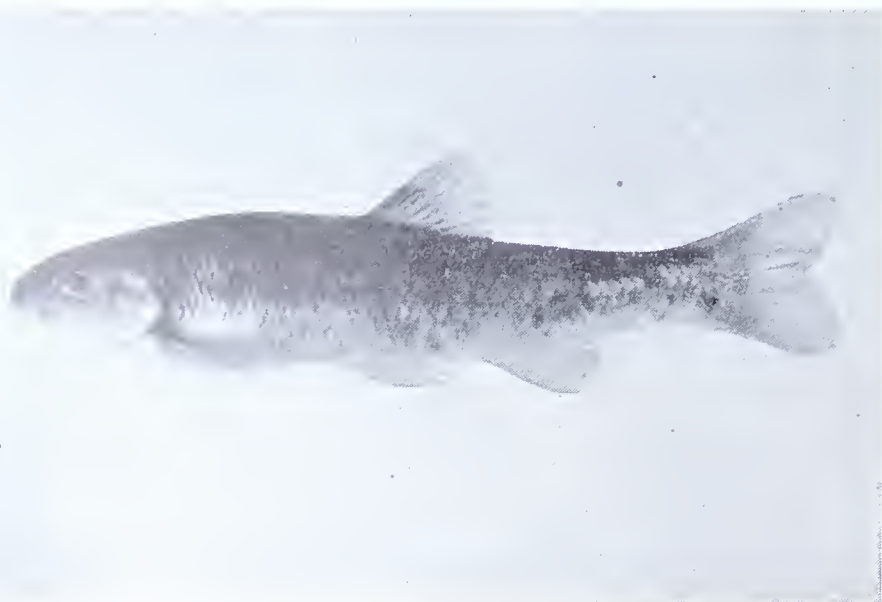
The presence of filamentous algae usually indicates that unicellular algae also is present although it cannot be seen without the aid of a microscope except where it is very abundant, in which case it imparts a greenish tinge to the water. Unicellular algae, and other coarser vegetation, are direct sources of food for small aquatic animals known as plankton. This plant and animal plankton is the most important food supply of both large and small minnows.

### Breeding Stock

The securing of adult minnows for breeding stock is frequently the first obstacle encountered. Very few of the State hatcheries are able to furnish them, but occasionally private commercial pondfish hatcheries maintain a stock of the more common species,



Common Shiner (*Notropis cornutus*)



Stoneroller (*Campostoma anomalum*)





Black-Head Minnow (*Pimephales promelas*)

such as the golden shiner. Main reliance must be placed upon seining or trapping the adult stock from natural waters. State laws usually govern such an enterprise and inquiry should be made of the State conservation authorities to ascertain what regulations, if any, apply. Since the private propagation of bait is a desirable conservation measure, State officials will undoubtedly be as liberal as possible in authorizing the seining of breeding stock from public waters.

#### Spawning Sites

Aquatic vegetation serves as spawning sites for many species of minnows that spawn naturally in quiet water. Such minnows as the golden shiner and the redbfin and red-bellied dace scatter their eggs over this vegetation. No production can be expected from these minnows without vegetation unless artificial-spawning mats are used. These mats may be sod, bundles of straw, or bundles of fine roots, but they do not give as good results as are obtained from natural vegetation.

Adult minnows often feed upon their young, and vegetation also provides hiding places where the young are given a chance to escape their cannibalistic parents and other enemies, such as kingfishers, wading birds and water snakes.

#### Pond-Spawning Minnows

In nature, this group, consisting of the golden shiner, red-bellied dace, redbfin, bluntnosed, and black-head, spawn in the quiet water of lakes, ponds, streams, creeks, or rivers. When they are present in flowing streams, such as creeks or rivers, they spawn only in the quiet pools. These are excellent species for pond production.

#### Vegetation-Spawning Minnows

The golden shiner and the redbfin are examples of minnows that deposit their spawn on submerged plants. These species do not guard or otherwise take care of their eggs, but leave them as soon as they have been laid and fertilized, whereupon their parental duties are completed. This type of minnow is ideally adapted for pond culture. It is only necessary to place the breeders in a pond having vegetation, and natural propagation will take place. The minnows of this group are described as follows:

**Golden Shiner (*Notemigonus crysoleucas*):** This minnow is very popular among anglers in all sections of the country. Its golden-colored sides and greenish back made it a very attractive fish. However, it does not attain this golden color until its second summer. The water in which it lives must be fairly clear to make the colors prominent. The larger individuals of golden shiners are excellent bait for pike, and bass, and the small specimens are equally good for perch, crappie and sunfish.

The golden shiner deposits its eggs on vegetation and usually begins spawning the first week in May in Ohio, Indiana, Illinois, and Iowa. The spawning season continues into August, although the heaviest spawning is in the month of May.

The golden shiner is a prolific spawner in ponds. At the Bureau of Fisheries hatchery at Fairport, Iowa, this species has been grown to a length of 4 inches in a single summer. Full-grown fish often attain a length of 8 inches. With little effort one may produce 50,000 salable bait of this species per acre of water.

Golden shiners may be found in streams, rivers, pools, lakes, sloughs, and bayous. It is one of our most cosmopolitan minnows,

and may be found in any section of the United States east of the Rocky Mountains.

**Redfin (*Notropis lutrensis*).**—This species, famous for bait in the Southwest, is a very attractive minnow; especially the male with his red or orange-colored fins and sides of a brilliant iridescent blue. The average length of the adult is 2.75 inches.

This minnow is very prolific in ponds. A. D. Aldrich, of Oklahoma, in unpublished data states:

"I believe it would be conservative to say that we produce 100,000 redbfins during a season from a pond 40 by 80 feet."

The redbfin begins spawning the first part of May and continues to spawn into the summer. This species also broadcasts its spawn over the vegetation.

The redbfin may be found in small rivers, creeks, streams, and lakes. It is primarily a Western species and looks very much like the Eastern lemon fin (*Notropis whipplii*). It is not always easy to separate the two species. The natural range is from the Mississippi River drainage west to Wyoming, and from Canada to the Rio Grande.

**Round shiner (*Hybognathus nuchalis*).**—Wherever it is found in abundance this minnow has, in recent years, become popular among anglers as a bait fish. This species in the mid-Western and Southern waters grows to a larger size than the Eastern and Northern forms. It is the larger variety that attracts such game fish as bass and pike. This minnow is less cannibalistic than the majority of our species.

The spawning season begins the last of April and early in May in Illinois and Iowa. In New York State it begins in June. Round shiners spawn naturally in ponds and during the summer of 1935 the writer obtained a production of 35,200 per acre from a small number of breeders. This production was from the smaller variety found in New York State. The mid-Western and Southern type seems to be more prolific and faster-growing; attaining a length of 6 inches.

This species may be found in rivers, creeks, ponds, and lakes. Its range has been reported from Georgia through Texas and northward to Canada.

(Continued on Page 18)



Redfin (*Notropis lutrensis*)



# BAROMETER FISHING, IS IT SO SIMPLE?

By WILLIAM R. WALTON

THERE was reprinted, in the July, 1939, issue of the Pennsylvania Angler, an interesting article, "Barometer Fishing Proves Efficient", by Reginald C. Snyder which appeared originally in the American Field.

A reading of this is calculated to fill the angler with elation and the belief that if he will but consult the barometer daily and await the appearance of a high pressure reading, he may then rush out to his favorite waters and with his trusty stick, infallibly and speedily gather unto himself fishes galore.

In the words of the author: "It is now possible, with every fisherman his own 'weather expert', to toss into the discard those dreary hours which he knows 'will not be worth a tinkers' dam.'"

The theory expounded as the cause of this action of the fish is simply this "When atmospheric pressure is low, fish go down to equalize the pressure of air and water. They must even up their bodily inward pressure created by air and water. When atmospheric pressure becomes high they rise to evade the added weight of more air plus water, and thus relieve the strain on their air bladders."

Let us inquire whether this theory agrees with the physical facts known to affect the air of "swim" bladders of fish. The following discussion of hydrostatic pressure on this organ is by an eminent British ichthyologist, Mr. J. T. Cunningham: "If a fish with an air bladder (Some fishes have none) swims to a slightly greater depth the bladder is compressed, the fish as a whole becomes smaller and heavier than the water displaced, and tends to sink with increasing velocity to the bottom. Such a fish, in fact, is in the con-

dition of the scientific toy known as the Cartesian diver. This consists of a hollow figure containing a bubble of air which cannot escape because the aperture is at its lower end. The figure is placed in a tall jar of water over the mouth of which is fastened an air-tight cover of rubber or other flexible membrane. If the figure is so adjusted that it floats just at the surface of the jar, very slight pressure on the cover *causes it to sink to the bottom* and when the pressure is removed the diver rises again. The pressure is transmitted to the air within the figure and compresses it so that it displaces less water and therefore the figure and the air together become heavier than water." (1) It becomes clear from this statement that the mere increased pressure of the atmosphere would have a tendency to sink the fish deeper into the water rather than to bring it to the surface. Moreover fish have the power, within limits, of exercising muscular compression or relaxation on their air bladders and thus are not materially affected by changes in atmospheric pressure.

So much for the air bladder theory, which apparently is invalid.

How about the effect of "High" pressure on the feeding of the fish? Do the facts as given by Mr. Snyder prove that fish feed only during the prevalence of such pressure?

In the language of an amusing and nationally famous political character, "Well, let's look at the record". In the account given of the fishing experiments in a number of localities in the United States, 8 principal locations are named. These are arranged below in a tabulation showing altitudes and barometric pressures.

These vary in altitude from 9,000 feet (Wild Basin Country, Colo.), to sea level (Lake Okeechobee) and are arranged here in the inverse order of their elevation above sea level. The column marked "Mean", lists the mean barometric pressure for the given elevation, which marks the division between high and low pressure for that location.

The column marked "High" indicates the high pressure reading for each locality and in all cases this has arbitrarily been made .5 of an inch above mean although the Weather Bureau lists as "high", any reading above the mean.

A casual inspection of this tabulation immediately shows a rather astonishing fact, viz: that the best fishing has been recorded at absolute atmospheric pressures varying from only 22 inches at 9,000 feet up to 30.4 inches at sea level. In other words, fishing has been at its best throughout the entire ordinary range of the barometer instead of at "high" pressure only.

At an altitude of 9,000 feet it was best at a pressure that was at least 6 inches lower than the barometer ever reads at sea level. It thus becomes apparent that mere static pressure has no effect on the biting of the fish, and some other interpretation of the data gathered by Mr. Snyder is required to correlate them with the activity of the fish. Thus, we might consider the question: Do changes in the relative air pressure at given elevations affect the biting of the fish?

Although this seems possible, we feel impelled to answer it by resorting to a Yankee custom and asking the question: Is there really significant evidence to warrant any such conclusion?

It may be remembered that the scale of our barometer is based upon a column of mercury 30 inches high and one inch square which is sustained at mean sea level by an atmospheric pressure of 14.72 pounds per square inch. But the total range in variation of the barometer at any given altitude, from extreme high to extreme low, seldom exceeds one inch, or a variation in pressure equivalent to a little less than 1/2 pound per square inch. Ordinary changes in barometric pressure usually do not exceed 1/4 inch or in other words 1/4 pound per square inch so that the amount of pressure thus exerted on a fish is extremely low. When we consider the fact that a fish swimming at a depth of 10 feet is subject to an atmospheric pressure of 14.72 pounds plus a hydrostatic pressure of about 5 pounds to the square inch these slight changes in the atmospheric pressure assume an insignificant dimension. Hence, Mr. Snyder's simile of the action of these slight variations in comparison with that involved in bringing a fish up suddenly from a depth of 30 or 40 feet becomes somewhat absurd.

Although it seems possible that game fish may be equipped with some kind of sensitive barostat which notifies them when it is time to feed at the surface, without casting any aspersions on the integrity of the experiments cited by Mr. Snyder, is it not far more probable that the apparent correlation between changes in atmospheric pressure,



The Potomac River above the mouth of Difficult Run, Virginia, looking upstream toward "Buzzard's Roost". The Potomac was the first stream on the eastern seaboard stocked with smallmouth bass.



shown by these experiments, were due to other unobserved factors, in whole or in part, and that they revealed only a fraction of the true story?

I am strongly of the opinion that not only is this true but that this entire question of the influence of pressure changes on the surface feeding of fish is far more complex in character than the article referred to would have us believe. The collection of scientifically significant data on this question would require procedure of an orderly and carefully planned character with the consideration of many factors not mentioned in the article by Mr. Snyder. These should include temperature of the water, its content of free oxygen, the conditions of light upon it, the prevailing amounts of turbidity, and only a single species of fish should be considered in any one set of experiments.

It should be remembered that, just as is the case with birds and warm blooded animals, each species of fish is a distinct biological entity which responds to environmental influences in ways that may be peculiar to it and no other species. An excellent example of this fact among closely related species is the response to low temperature shown by the largemouth and smallmouth bass. The former remains actively feeding all winter in its southern range while the smallmouth either enters a state of hibernation or at least remains quiescent for many weeks during the winter. To approach the investigation of the subject under discussion without considering this important fact and without conducting the investigation for at least several consecutive seasons and in different bodies of water at widely separated altitudes, would result only in failure to secure the necessary conclusive evidence.

I have personally and for years been a consistent (if amateur) observer of barometric changes. During this period there has been present in my office, located about 30 feet above sea level datum, an excellent compensated aneroid barometer which it has been my daily habit to read and record each morning.

I am also a chronic angler, in fact "fishing is the most fondest thing I'm of". I love to cast a fly, but when I can't fish otherwise I will descend to the depths of piscatory degradation and angle with shad guts for catfish. My companion in such misdeeds for at least 20 years has been Dr. F. C. Craighead, a product of Cumberland County, Pennsylvania, and a scientifically trained forester and entomologist. We have fished most frequently in the Potomac and its tributaries at altitudes of from sea level to 150 above it.



A fine catch of rainbow trout from Oak Creek, Arizona.

As a result of our joint observations, made with catfish and smallmouth bass, we are agreed that gross changes in atmospheric pressure do seem to affect the biting of these fish here. But—sad to relate, we have consistently found the fishing best not on a rising but on a falling or low barometer! And that it was useless to attempt to fish during the rapid influx of a marked area of high atmospheric pressure. If this be heresy—then make the most of it.

CLINTON SPORTSMEN WAR ON WATERDOGS

The Western Clinton Sportsmen's Association sponsored a gigging party on Kettle Creek recently for the purpose of destroying waterdogs and watersnakes. The work was done under the supervision of Fish Warden George Cross. Since the association recently decided to pay a bounty on all such pests, more than 400 have been turned in for collection. The greatest number has been removed from Kettle Creek which is expected to improve fishing conditions in that stream.

LEHIGH STREAMS TO BE IMPROVED

The Lehigh county commissioners were notified recently that their application for a \$21,000 WPA project for the propagation of fish and for recreational facilities on the Little Lehigh, Spring and Swope creeks had been prepared at the Reading WPA branch office and was ready for submission to Harrisburg for approval.

Duplicate location plans were being prepared as requested by the commissioners' office, sponsor of the project, and C. Joel Young, district fish warden, who will supervise the work for the Fish Commission.

Approval of the project will provide employment for approximately 40 men for from three to six months, according to Mr. Young, with the WPA paying labor costs and the commission furnishing materials and tools.

Mr. Young said this project will complete the fish propagation work already carried out in the Little Lehigh Parkway under a project sponsored by Allentown city council. Releases have been secured from property owners for all areas not previously improved.

The work will entail the building of dams, deflectors and retards, improving the streams' food production, making available more fishing water and increasing the streams' carrying capacity for fish by providing more shelter.

TIONESTA CREEK YIELDS FINE BASS

While fishing in Tionesta Creek from the Kelly Farm to near the mouth on July 23, John C. Taylor, of Tionesta, and Russell Snively, Dick Keeley and Dick Bender, all of Franklin, caught 16 bass of a total weight of 29 pounds. One of these weighing 3¼ pounds was landed by Taylor and one other weighed 2 pounds. Taylor did and always does his fishing for game fish with a plug. His companions on this trip used frogs for bait.

TABLE SHOWING LOCALITIES, THEIR ELEVATIONS, MEAN AND HIGH BAROMETRIC PRESSURES

Locality	Elevation	Mean	High
Wild Basin Country, Colorado .....	9,000	21.5	22.0
Jackson Lake, Wyoming .....	6,733	23.4	23.9
Iron River, Michigan .....	1,491	28.3	28.8
Walker Lake, Michigan .....	1,322	28.4	28.9
International Falls, Minnesota .....	1,107	28.7	29.2
Lincoln, Illinois .....	590	29.3	29.8
Liverpool, Illinois .....	472	29.4	29.9
Lake Okeechobee, Florida .....	sea level	29.9	30.4

Elevations unmentioned by Snyder, obtained from Dictionary of Elevations, by Gannett.

Mean pressure calculated from tables, Weather Bureau Bulletin 472.



# PREDATOR CONTROL COUNTS

## Sensible Campaigns for Watersnake Control are Needed in Pennsylvania

By ALEX P. SWEIGART

It has long been contended by noted conservationists, with absolute justification, that predator control if carried to extremes may result in disaster for either game or fish. We cannot, in the light of facts that have been established relative to overworked predator campaigns, disregard the serious consequences that may follow any drive bringing a species of predator to the verge of extermination. In the reasoning of an old and mighty sensible mountain man of our acquaintance "The Lord shore hed a pupose in puttin' down catymounts, weezels, snaiks an' other varmints er he wuden't hev made so many of them". Homely reasoning, you may term it, but there's a whale of a lot of common sense and observation covering a period of many years with which he could back his argument.

There never has been and probably never will be any phase of the conservation program presented that does not definitely have two sides. Too drastic reduction in the number of creatures that prey upon fish and game may easily work to the detriment of the desirable species which we hope to protect. Absence of predators in Australia caused the introduced rabbit rapidly to assume the role of a nuisance, to mention one instance. Examples there are galore of the serious results of control campaigns aimed at extermination. Virtually freed from the harassment of the mountain lion and wolf in the Kaibab, the deer herd expanded to such numbers that starvation became a grim spectre in an overbroused territory. Oh, yes, there are definitely two sides to this predator

question, and far be it from the purpose of the writer to discount the role of any species in retaining that "balance of nature" we're hearing more and more about these days.

In the campaign for control of the watersnake started back in 1933 by the Fish Commission through its publication, the ANGLER, sensible measures for keeping this reptile within the bounds necessitated by modern conditions were stressed. Extermination, we are happy to say, never figured as a consideration. The role of this predator as an agent in removal of diseased and otherwise unhealthy or weak fish in any body of water is 100 per cent on the credit side. Nature's executioners, if present in reasonable number, must work to the good of fish or game. We cannot disregard this fact.

But let us turn to the other side of the argument. Certainly, when we consider present day conditions, intensive control measures against the watersnake are necessary. Listing them: (1) During this, the ninth summer since the disastrous drought of 1930, Pennsylvania waters are at record or near record lows, a condition favorable to appalling slaughter of fish life in trout and warm water streams by the watersnake; (2) The high rate of reproduction of this reptile, adult females frequently bringing forth live litters of from 12 to 40 young, is a potent consideration; (3) The vast increase in number of fishermen in Pennsylvania during the past three years has resulted in a constantly increasing drain on food, game and forage fishes by anglers on available fishing waters; (4) (And we believe this of vital importance

at the present time) is the threat of the watersnake to our hard pressed supply of forage fishes in many streams.

### Drought Snake's Ally

Granted a normal flow of water in trout or bass stream, the incursions of the common watersnake, *Natrix sipedon*, are not so severe. Examination of snake stomachs over a period of years has revealed that an important item on its menu has been the bullfrog and bullfrog tadpole. The shoreline, without doubt, serves as a favorite foraging area for this reptile and when streams are at normal or above normal flow, toads and frogs seem favorite food. Not that fish taking at such times, however, is forsaken in its foraging. On the other hand, this agile reptile at all times seems capable of making heavy inroads on the bullhead catfish and stone catfish, particularly during the day, in times of clear water, when apparently the snake has little difficulty in cornering and seizing catfish under rocks.

Extremely low water on virtually all streams during the summer months since 1930 has completely altered the picture. Trout streams have in many instances dwindled to a succession of pools with constantly increasing riffle areas being exposed to air and sun. This has resulted in a concentration of trout of various sizes in the narrow confines of the pools, a condition extremely favorable to deadly execution on the part of the watersnake. We have marvelled on occasion at the cunning of this predator in taking trout. Gliding smoothly into the clear water of a pool on mountain or meadow stream, it has almost seemed to us that the snake must instinctively know that it is no match in speed and agility with its intended victim, the trout. But terror on the part of the fish is a potent ally to the reptile. Instinctively wary and timid by nature, the trout follows its first reaction to alarm by seeking cover, very often beneath a rock or overhanging stream bank. There it is a comparatively easy matter for the watersnake to corner and seize its prey.

While, it is true, larger warm water streams favored by bass, pickerel, wall-eyed pike, the various species of minnows, sunfish, catfish and suckers, have not been reduced to the trap-like pools occurring on trout streams due to drought, definite shrinkage in riffle areas has occurred. Cornering minnows in extremely shallow pockets occurring along the shoreline, which receding water levels have left, results in many captures of these valuable forage fishes, such as the silver shiner, by the voracious reptile. In addition to its inroads on the minnows, the stone catfish, ace-high as game fish forage, comprises an important factor in the watersnake diet. The popularity of the stone cattie as a bait fish with live bait fishermen coupled with the inroads upon the species by game fishes such as the smallmouth bass in many of our streams has brought about an alarming decline in number of this splendid forage fish, a factor which must be given serious con-



The common watersnake is a graceful and active fish predator.





Examining the stomach contents of a salamander or waterdog, a fish predator of considerable importance.

in addition to the cash payment on each snake.

Another favorite food with the watersnake, probably because it is a slow-moving and sluggish type of fish, is the common sucker. We have long felt that the value of the sucker when computing its worth in relation to desirable game fish food has been underestimated. Young suckers, moving down from small tributary waters, in which they are hatched, to bass areas are to be reckoned food of the finest type for game species. Time and again, in observing feeding snakes, it has been noted that the victim was one of these bottom-feeders. Due to the elasticity of its jaws, a 30 inch watersnake is capable of swallowing a sucker 10 inches or over in length.

The diet of the watersnake is also known to include insects, but it is only reasonable to believe that this predator, in common with other killers, is quick to take advantage of any condition offering an abundance of easily secured forage. Drought-stricken streams make its presence in large numbers a consideration not to be taken lightly by those engaged in the drive for better fishing.



A watersnake with its victim, a fair sized trout.

### Fishing Demand Heavy

In considering the tremendous increase in number of licensed fishermen in Pennsylvania during the past three years, from 260,000 to almost 400,000 last year, with probably an even greater number astream this year, the additional strain on our available fishing waters may be readily realized. While a growing percentage of these anglers now fish or are switching to fishing artificial lures for game fish, we must concede that a preponderant majority are live bait fishermen, many of whom rely upon taking their bait in the water they happen to be fishing. This can mean but one thing, particularly on smaller warm water streams, a thinning down of organisms and forage fishes, upon which bass chiefly rely, to the danger point. Netting out of easily accessible riffles and shallows on such streams has so drastically reduced bass forage on these waters that the additional toll taken by a dense population of watersnakes is certain to hasten, at least, the day of reckoning. Prolific though most forms of forage fishes are, it is asking next to the impossible to expect natural reproduction to counteract the inroads made by fishermen for bait and those of hundreds of watersnakes for food in water areas of this type. This, then, we regard as the crux of the watersnake problem on many of our warm water streams. It is a problem that, under present conditions, must be met with strong control measures in reducing the watersnake population in areas where the toll of the reptiles on fish life is excessive.

### Prolific Breeders

We have already noted that the watersnake brings forth its young alive, frequently in litters numbering from 12 to 30 and occasionally as high as 40. Under primitive conditions, this high rate of increase was counteracted by thousands of natural foes. Wading birds, such as the heron, bullfrogs, and even fish of certain species relished the young of the watersnake as food. The same, of course, holds true today but the number of these counter-acting agents to its increase has been greatly reduced in Pennsylvania. Young watersnakes are exceptionally active almost immediately at birth, and it is not improbable that a fair percentage of each litter may come through, under present day conditions, to enter hibernation in the fall. Where the adult snake population is heavy, this potential increase must be given serious consideration for it is virtually certain, if it occurs, that an additional sapping drain will be placed on the fish life in such waters. It seems logical that man, since he today ranks as a major agent in holding down the fish population on our intensively fished waters, should also assume the role of predator control on his favorite streams.

### The Campaign Is On

Organized sportsmen have been key men in the drive for control of the watersnake in Pennsylvania during recent years. Associations in some instances have offered small cash awards for each watersnake tail (or head, as the case may be) turned in. A notable example is the success attained last year in its watersnake campaign on Huntingdon county fishing waters by the Huntingdon Fish, Game and Forestry Association. Over 1500 snakes were killed by boys in the county who vied for attractive prizes offered



This watersnake with its victim, a brook trout, was found and captured by J. Bitner of Carlisle.

prizes offered in addition to the cash payment on each snake.

The Board of Fish Commissioners has stressed the necessity of watersnake control particularly this year, in view of extremely low water conditions prevailing throughout Pennsylvania. Cooperation of the sportsmen has been vital to success of the control campaign. A number of years ago, organized drives were conducted in many sections and thousands of snakes were killed. Equally important have been the efforts of boys under 19 years old. These youngsters spend plenty of time on our fishing streams during vacation months and, spurred by the offer of an attractive bronze medal offered by the Fish Commission to every boy or girl killing 10 or more snakes, have been a decisive factor in reducing the number of these destructive reptiles.

The following rules governed the Junior Conservationists' Watersnake Campaign this year:

No person over 19 years of age can qualify for one of the conservation medals.

Any Boy Scout who kills his quota of 10 watersnakes will report the killing to the Scoutmaster in charge of the troop. In turn, the Scoutmaster will notify the Fish Commission and the boy will be awarded a medal.

A boy who is not a member of a Scout Troop will be awarded a medal if he reports, with proper evidence, the killing of 10 or more watersnakes to a Fish Warden, or official of a Sportsmen's Association.

A snake, to be entered in the total killed, must be 12 inches in length.

(Continued on Page 17)



# FISH FOR SUPPER

By G. FRANKLIN BELTZ

MARY NOLAN was very emphatic as she dished out the bacon and eggs for her tanned young husband of six months. "Nothing doing, Bill", she said. "Fish are out. You knew before we were married that I despise the slimy things. Why try to change me now?"

Bill Nolan slowly buttered a piece of bread. His lean face was grim. It wasn't nice—this bickering with his young bride. But to Bill Nolan it was more than a quarrel. If his wife had her way it meant the end of lazy days—nights, sometimes—on the river, with a battered hat low over his eyes and a seasoned pipe smoking mightily at the buzzing mosquitoes. Bill Nolan was a fisherman, born and bred. It was in his blood. His wife was not.

He looked cautiously toward the dishpan in the sink, where three large smallmouth bass mingled coldly with half a bucket of chipped ice. "You needn't eat any," he said hopefully. "I'll have young Tim Harris in to clean them. All you have to do is fry them for supper". He added wistfully—"I like fish."

His wife turned down the wick on the oil stove, crossed to the table and put soft

arms around his neck. "Bill," she said. "Please. It isn't the mere cooking of those fish that counts. This is our home, Bill. We've been married six months, and there hasn't been a single week-end that you haven't gone fishing, plus two and three nights during the week. I don't get any pleasure out of staying here alone. And I don't think it's fair that I should. I thought perhaps if I made you give away whatever fish you caught the fever would go out of your blood. Now you're starting all over again. If I gave in this little bit and fried those fish for supper, you'd take more rope and insist on going out this weekend. I can't stand it, Bill. It-it's either the fish—or me!"

Nolan reached up and patted the soft cheek so near his own. "Okay, dear. Maybe you're right at that. I'll try and give it up. But if you'd go along just once, I know you'd love it—the cool evenings along a stream, crisp fish browning over a camp fire . . ."

"Bill!" Mary was laughing, now that her point was won. "There you go! Well, young man, I'll tell you something. If you can ever persuade me to eat just one of the smelly old things I'll risk a fishing trip with you. But that won't come to pass—so bring home a nice roast for supper."



If his wife had her way it meant the end of lazy days—nights sometimes—on the river, with a battered hat low over his eyes and a seasoned pipe smoking mightily at the buzzing mosquitoes.

Bill Nolan shoved back his chair and rose. "Got to be getting to work," he said gloomily. "I'll call the kids at the club and tell them the weekend trip is off." He kissed his wife's up-turned lips dutifully and went out the door.

Mary watched him go, a slight frown marring her lovely features. She knew she was right, and yet there was something about the disappointed sag to her husband's shoulders that warned her how hard it would be for him to keep his promise to her. Perhaps she shouldn't be quite so strict, one trip a week wouldn't hurt.

Young Tim Harris was unusually silent that morning when he came for the bass Bill Nolan had caught the night before. The red-headed, freckle-faced youngster of twelve summers always had plenty to say, but this morning he evaded most of the questions Mary put to him. Almost as though he blamed her for something. In desperation she asked, "Did Bill call you about the fishing trip?"

Tim looked at her glumly. "Yes."

Mary felt like a thief. Bill had organized a club for a group of boys who went with him on most of his fishing excursions. It was a shame that they should be disappointed, but, after all, the problem was one for her and Bill to decide.

"It's too bad," she said lamely. "But maybe someone else will take you."

Tim looked at her with suddenly pleading eyes. "There's no one else knows the holes like Bill, Mrs. Nolan. He taught us how to fish, how to find our way through the woods to the best pools. He showed us where to dig for night crawlers, and told us why it's better to spend our allowance money for plugs instead of using live bait. He's a great guy, Bill is."

Mary Nolan felt herself strangely touched by this fiery defense of her husband. She had never considered fishing in exactly this way. "I think so too," she said impulsively.



"You needn't eat any," he said hopefully. "All you have to do is fry them for supper."

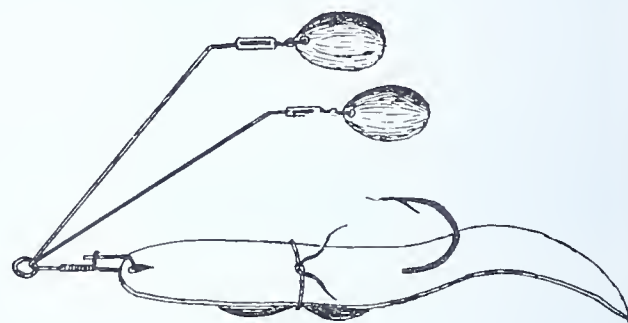


She: "No, you just make me sick."

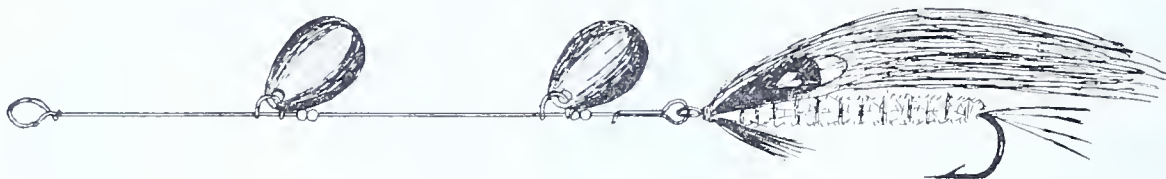




PICKEREL SPOON

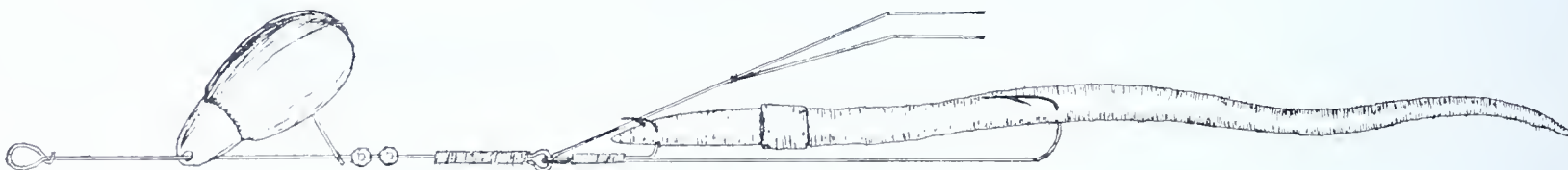


PORK RIND LURE  
FOR PICKEREL

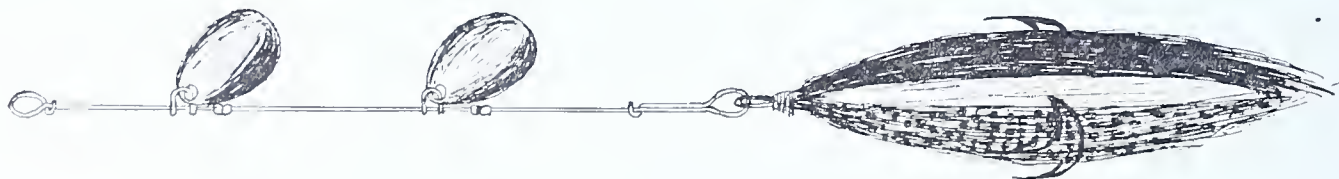


ALL AROUND LURE

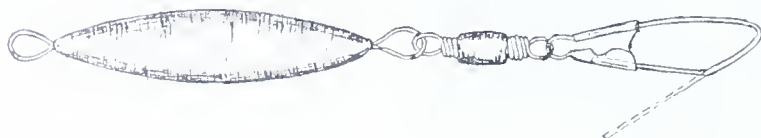
EDSON DARK TIGER



A GOOD TROLLING RIG FOR WALLEYES



PICKEREL LURE



SNAP SWIVEL WEIGHT



SPINNING MINNOW RIG.



# WALL-EYED PIKE AND PICKEREL FISHING

By CHARLES M. WETZEL

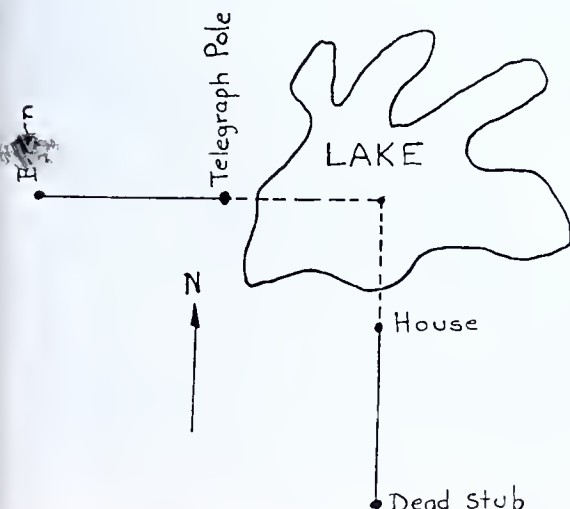
**A**ROUND the latter part of September, and throughout October, wall-eyed pike usually start out on a biting spree. This is the time of year when good catches can ordinarily be expected, for the cold weather seems to "pep them up", and make them more active.

Wall-eyes travel in schools and where one is caught, others can usually be taken near the same vicinity. They are lovers of deep water, and in lakes are commonly found around ledges, or other places where an abrupt change occurs in the elevation of the lake bed. These are the localities where the best fishing is to be had in the heat of day; but in early morning or evening, one can expect to find them ranging around almost anywhere.

Probably the best way to locate these deep spots is to secure the services of a native who is familiar with the region. If the lake is an artificial body of water, one can sometimes secure topographical maps, showing the contours and the location of the original stream bed before the area was flooded. Such maps are invaluable, and from the elevations of the contours, one can readily locate the deep waters, and the abrupt jogs in the lake bed.

In trolling such a lake, by all means follow the bed of the original stream. Two rods are about all one can comfortably handle, and when turning the boat, do it on a large radius, to prevent tangling the line. My favorite combination for trolling is a June Bug, or a double bladed spinner, attached to a weedless hook, baited with a night crawler. This rig, when weighted with a sinker and trolled at about three miles an hour, is hard to beat. The weedless hook is especially invaluable, and my preference is for the one illustrated in the sketch. With it, the worm can be held straight out, giving it a tantalizing wiggle, and the protective wires enable it to glide over submerged stumps, etc., without getting fast so often.

As soon as a fish is caught, stop the boat and mark the locality by lining up objects on the shore line in two different directions. Pick out some conspicuous land marks not easily forgotten, such as dead trees, houses, etc.; and if your memory is bad, jot down the location in a note book thus:



The writer on a Canadian fishing trip.

Later on, when you again want to locate the spot, row the boat around until you are in line with the objects on both shore lines. Naturally the farther these objects are apart, the closer you can line yourself in. This is an old trick resorted to by Canadian guides, who invariably mark holes, etc., by this method. I first learned of it up on Timagimi, a number of years ago. We were trolling, and after the first fish was caught, we dropped anchor and started to still fish with live minnows—the favorite Canadian method. Our guide had been previously engaged for the following day by another party, and as we wanted to fish the place again, he took pity on our ignorance, and showed us how to locate the spot—within a rod or two—by lining up objects on the shore line.

As in lakes, wall-eyes in creeks and rivers are usually found in the deeper waters, quite often around large submerged rocks. Catching these fish is quite a problem. Probably the majority are caught still fishing with night crawlers, minnows or stone catfish, but an underwater plug worked deep will oft-times work wonders. My preference is for the frog finish, a yellow and green spotted affair. I have also taken them on flies and bucktails. Among the latter, the Edson Dark Tiger, attached to a double bladed spinner is a good combination. H. G. Tapply, Editor of "National Sportsman", first told me about this fly a few years ago, and he recommended it most highly. I have taken many trout on it besides numerous panfish, bass, wall-eyes, pickerel, fallfish and great northern pike. All in all, it is an excellent fish taker, and well worth a try out. In a more recent letter Tapply comments: "I wouldn't feel badly at all if my selection of flies were limited to this pattern, and to the Light Tiger for whatever species of fish swim in these United States. These two flies have accounted for plenty of

salmon, trout, bass, pickerel and panfish, and in my estimation they rank as high as any other pattern now being tied". The dressing for the Edson Dark Tiger follows: Body, yellow chenille with scarlet feather at throat; tail, Lady Amherst fibres; wings, brown bucktail, with Jungle Cock side feathers.

In some localities, wall-eyes indulge in a regular jumping orgy. I have seen such a sight on Little Mud Lake, and I shall never forget it. It was simply indescribable. We were returning from Northern Ontario on an extended fishing trip, and I wanted to give Little Mud Lake another whirl before going home. The following morning I was out before daybreak, and such a commotion I never heard in all my life before. Fish were breaking water everywhere, and coming down on the surface with loud explosive thuds. When it became light enough to see, I recognized them as wall-eyes, and monsters, too.

Whenever I think of that scene, I still get a thrill; Everywhere one looked fish could be seen clearing the water. Honestly I believe that if one would have taken a shotgun, and shot out at random anywhere over the water, he would have taken a fish at almost every shot. As a matter of fact I was almost keyed up to extremes, for those fish got my goat, and I don't mean maybe; I simply could not catch one of them; My favorite plug for wall-eyes, the green and yellow spotted frog finish, was contemptuously ignored, as well as every other lure I tried. And I tried plenty, too, believe me, spoons, surface plugs, flies, in fact everything in the whole damn tackle box. Not that I cared so much about having the fish; it was just the thought of their outwitting me. As a matter of fact, if I had returned with one, and suggested that my wife fry it, she would

(Continued on Page 29)





Now thet fall is here, the pike in our big crick hez bin perkin' up an' hittin' a lot better. We hed such hot weather an' low water this summer thet a feller jest cuden't seme ter git the pike het up erbout ennything he fished fer 'em with. I bin afishin' fer pike fer nigh onter 35 years, an' durned ef I don't find out sumthin' new erbout 'em every time I git on the crick.

Jest take a cuppel days back, fer instance. I ketched me erbout half a dozen nice run chubs an' headed fer the hole down at the covered bridge. Fer sum reezun er other, pike semes ter like holes under bridges in our crick. Mebbe its because they're shady, but I kin most always count on gittin' hold o' one er two of 'em when the water cools off.

Well sir, I hed jest throwed in with a nice lively chub when a pike I figger was erbout 20 inches long cums ter the top en' grabs it afore it hed made more'n a cuppel wiggles. Thet pike sunk ter the bottom with the chub an' like I allus do when I'm fishin' a minnie er stone catty hooked thru the lips, I set the pole, figgerin' on waitin' till he started off with the minnie afore settin' the hook. Jest erbout the only sign ennythin' wuz on the uther end o' the line was a few short, chop-pin' tugs. Thet's the way pike work on live bait, holdin' it sidewise atween their jaws fer mebbe 10 er 15 minits afore they turn it ter take it down. We allus figger thet, when they start off with the bait they've turned it ter swaller it hedfirst, an' purty often thet system works.

But, by gorry, this pike shure pulled a good un on me. Off he starts, an' when I titened on him, I figgered fer shure he wuz hooked. Danged ef thet fish didn't hang onter the minnie like a bulldog til I got him clear ter the bank, then he lets go an' gives a flip o' his tail jest as if ter say "ta heck with you, Jerry".

Semes like the big pike in our crick jest goes on feedin' sprees mebbe wunst in a week, an' when they do a feller kin hev sum mitey good sport. They brake water, hed ashakin' jest ez purty ez enny bass you'd wanten see, an' I'm claimin' they're mitey good game fish.



*Question: I hear quite a few references these days to "panfish". What kinds of fish are included under this classification in Pennsylvania?—R. L.*

**Answer.** The list includes the bluegill sunfish, common sunfish or "punkinseed", the rock bass, the crappie, the calico bass, the yellow perch and, although it is the largest member of the minnow family, the fallfish. All are readily to be taken on hook and line by using the universally popular earthworm, commonly more politely referred to as "garden hackle".

*Question: Just when does the sunfish spawn? I saw one on the nest the last week of August and it came to me as a surprise, for I thought this fish spawned at the same time as the bass.—J. T.*

**Answer:** Spawning time for the bluegill sunfish and common sunfish extends from late May well into the summer months, sometimes as late as August.

*Question: Just what types of bait are "fish bait" under the Fish Laws? "Bait Fish"?—P. N. G.*

**Answer:** Bait fish as defined in the Fish Laws include all forms of minnows except fallfish, and all forms of killifishes and stone catfish. The term "Fish Bait" means crawfish, also known as crayfish and crabs, the "waterworm", larva of the crane fly, mussels, and helgramites, larva of the Dobson fly. The helgramite is also termed in some localities as "clipper" and Dobson.

*Question: What are some requirements of the rainbow trout?—R. W. S.*

**Answer:** Introduced to Pennsylvania waters from the Pacific Slope about 1878, the rainbow trout *Salmo irideus* has become acclimated to some streams in this state and today is an important species of game fish for stocking. It seems to thrive best in waters having a turbulent heavy flow. It is believed that when this characteristic is present in streams it may serve somewhat as a counteracting agent to fairly high water temperatures. Apparently, the rainbow trout requires a heavy content of oxygen in waters it frequents. However, the impression that either this species or the brown trout will successfully withstand unusually high water temperatures has not, to our knowledge, been established in fact. It is believed that deep reservoirs on some of our rainbow trout waters may serve as suitable wintering quarters for the fish, serving to allay somewhat the migratory instinct of this species.

*Question: What would you class as the ten outstanding patterns of trout flies for use in Pennsylvania trout streams?—R. K.*

**Answer:** That's a touchy subject, fly fishermen being highly individualistic when it comes to their pets. However, we figure you can't go wrong in stringing along with Chas. M. Wetzel in the following selection: Royal Coachman Fanwing, Pale Evening Dun, the Governor, Pale Watery Dun, the pale watery spinner, the ginger quill, the midge, the blue-winged olive dun, the brown bivisible and the coddung.



Harry P. Custard, late Fish Warden for Monroe and Carbon counties, prosecuted Alton Mosher of Easton for exceeding his limit in scoring this catch of 57 yellow perch and sunfish.





Ellsworth Brown, Jr., of Wyoming with his 18 inch rainbow trout from Lackawaxen Creek.

# DID YOU EVER?

By E. P. R.

Did you ever, as a little tyke, hear your Dad and his buddies plan their fishing trips with a lot of mysterious talk about spinners, professors, black gnats, royal coachmen, nine-foot leaders, tapered lines, and a rod with a real backbone, and wonder what it was all about?

Did you ever look forward to the time you would be big enough that Dad might ask you to make one of these spring pilgrimages with him, and have visions of bringing home a big one like the one your uncle said he caught?

Did you ever have your mother say you might go fishing if you would spade a certain plot in the garden, while spading fill a nice tobacco-can full of garden hackle, and then have the misfortune of having a big thunder storm come up just as you finished the job?

Did you ever, on a balmy day in April, discover that you just couldn't stay in school, and together with a buddy steal away for a fishing trip along the old mill creek, catch a string of nice big suckers, and afraid to take them home, finally get old Aunt Mary down at the cross roads to cook them for your supper, after she had extracted a promise that you would never play hookey again?

Did you ever, as you grew older, graduate to the class that uses a rod and reel, and on your first trip out snag a big one and enjoy the thrill of a long battle between the grandaddy of all bass, he in his element and you in yours, with just a light line to stand the tug-of-war?

Did you ever, after you had won such a battle, gaze at the old boy and then decide to release him with wet hands with the hope that you might meet again some day for another tussle?

Did you ever realize that there are six hundred thousand fishermen in Ohio who enjoy the sport even as you and I, and that real conservation is necessary if the sport is to endure for long?

Did you ever, as an individual or as a member of an organization, attempt to do something to bring back the fishing of yesterday?

Did you ever stop to consider what the days you spent along the streams in God's great out-of-doors had to do with making you the man and conservationist you are today?

Did you ever wonder if your son and your son's son might enjoy some of that out-of-doors which was yours?

**OR DID YOU EVER?**

—The Ohio Conservation Bulletin.

## PREDATOR CONTROL COUNTS

(Continued from Page 11)

Not only is watersnake hunting a definite benefit to Pennsylvania aquatic life, but it serves to keep the "shooting eye" of the average sportsman in trim for the hunting season. The head of a watersnake just visible above the stream surface as the reptile glides through the water is certainly not an easy target in small-calibre rifle shooting and offers possibilities aplenty for sharpshooting. Mustard seed shot in the small calibre load is also to be used with deadly advantage although its use is not advisable save in an old rifle in which the bore is just about shot out.

"For Better Fishing, Control The Watersnake", is a slogan that may well be considered under present drought conditions.

## RECORD CROWD AT EASTON MEET

A record crowd attended the annual Easton Fish and Game Association outing at the association grounds at Twenty-fifth and Wood Streets in Easton and enjoyed the program of events conducted by the organization.

In the archery contest the Moe Silverstein cup was won by Russell Schooley, with a mark of 477 with Tom Rich, second with a 445 score and Mrs. Minna Schooley third with 403.

J. Stotz, who had a perfect mark at 100 yards, won the small bore rifle shoot with a score of 392 and was awarded a Plinker target. William Bertolet and H. Kachline were tied for second with 387, with Bertolet being awarded second place and a pair of polarized sun glasses on the basis of bullseyes.

David Pickel won first prize in the turtle race, with Charles Pickel second and William Johnson, third. In the softball game the Fish and Game club won from the Easton Postoffice, 2 to 1.

Bait casting, into a three-foot circle, attracted a number of contestants. W. Basto won first prize for accuracy and Henry Diehl, first award for distance. Diehl cast 121 feet and 3 inches.

The Easton Police No. 1 team won first place in the pistol shoot. Other teams finished as follows: Wilson Borough police, second; Sheriff's team, third; Bethlehem Rifle and Revolver club, fourth and Easton Police Team 2, fifth.

Capt. H. J. Menikheim of the Easton police was in charge of the pistol shoot, aided by Officer Snyder, of the Easton police; H. B. Brunner, inspector of pistols and W. B. Johnson, in charge of targets.



Three days after taking an 8-inch bullhead catfish, this bullfrog died. The pectoral spines of the catfish stuck in its throat. Robert Reifsnyder of New Berlinville submitted this unusual photo.



# PROPAGATION OF BAIT AND FORAGE FISH

(Continued from Page 7)

Red-bellied dace (*Chrosomus erythogaster*).—This is a very showy minnow, especially the male, during the breeding season. Its vivid red belly, black lateral stripes and yellow fins compare favorably with the most highly colored artificial tackle.

The spawning season begins the first of May in Illinois and the adults attain a length of 3 inches. They will propagate naturally in ponds, and deposit their eggs on aquatic vegetation. Cooper, referring to the closely-related species *Chrosomus eos*, states (1935; p. 141):

The eggs are normally, and so far as observed, deposited entirely in masses of filamentous algae.

This species inhabits streams, creeks, ponds, and lakes. Its distribution is rather spotted in the Northern part of the United States and through the East and Middle West.

## Rock or Log-Spawning Minnows

This group of minnows, such as the blunt-nosed and black-head, spawn naturally in ponds and deposit their eggs in a mass on the underside, or ceiling, of rocks, logs, and the leaves of large vegetation, such as lily pads. Whole tiles, pieces of tile, flat rocks, and boards of approximately 6 inches in width make ideal spawning sites. These objects must be placed in the ponds where the minnows are to propagate. The rocks and tile must be about 6 inches above the bottom of the pond so that the minnows can work underneath and deposit their eggs on the ceiling of these objects. The pieces of tile or rock should be placed along the shore of the pond about 6 feet apart, with the nest 12 inches beneath the surface of the water. If there is a shallow end in the pond, the nests may be placed over the bottom in this section, in checkerboard fashion, about 6 feet apart. Pieces of board 6 inches wide may be stuck into the mud on a slant deep enough so they will remain in that position. They should be in about 18 inches of water.

While the female deposits her eggs they are fertilized by the male. As soon as her eggs are laid she will depart and the male will stay to care for them. The male often

induces more than one female to deposit eggs on his nest. The same females may return to deposit more eggs on the same nest before the first eggs deposited are hatched. It is for this reason that eggs are found on the nest in different hatching stages. The number of eggs per nest varies from 36 to 12,000, depending upon the number of females depositing eggs there. The male performs three functions on the nest; protection, changing the water around the eggs, and keeping the nest clean. If the water is not kept in motion around the eggs they will not hatch. The same applies if the nest is not kept free from sediment, which smothers the eggs. If the male is left alone he will take care of all these essential functions.

The males of these fish grow larger than the females and when the breeders are taken from natural water the majority should measure between 2 and 3 inches. If all the broodstock measures over 3 inches, the number of males will be much greater than females. It is advisable to have a greater number of females than males.

Blunt-nosed minnow (*Hyborhynchus notatus*).—The blunt-nosed minnow is often found in the angler's bait pail, but is seldom referred to by its proper name. It usually is called a small chub by anglers and bait dealers. It is a durable minnow on the hook and makes an excellent bait for crappie, perch and sunfish. The larger individuals, 3 inches or over, are good bait for bass and pike.

Blunt-nosed minnows begin spawning the first of May and continue into the summer. Their eggs are deposited underneath rigid material such as rocks, tiles, and other objects, as described under the heading of this group. According to VanCleave and Markus (1929; p. 539), females spawn in their second summer.

The blunt-nosed minnow is a prolific spawner in ponds, and large yields per water acreage can be obtained from this species. It is difficult to separate males from females except during and shortly before the spawning season when males may be easily detected by their darker coloration. In addition to this, the end of the nose and the top of

the head of the male, at this time, bear small white spines known as pearl organs.

In nature, the blunt-nosed minnow may be found in streams, creeks, rivers, ponds, and lakes. Its general range is from Lake Champlain through the Great Lakes Basin and the North Atlantic Region as far south as New Jersey, and down the Mississippi River drainage to the Alabama River and the Rio Colorado of Texas.

Black-head minnow (*Pimephales promelas*).—The black-head minnow is a bait fish comparable to the blunt-nosed minnow.

In Ohio, Indiana, Illinois, and Iowa the black-head begins spawning by the first of May and continues into the middle of August. The eggs are deposited in masses under rocks, tiles, etc. The incubation period is about 5 days and the minnows attain maturity very rapidly. Markus (1934; p. 120) states:

The minnows hatched in the early spring (generation 2) attained a length of 55 mm. in 2 months, whereas it took the late fry (generation 3) approximately 3½ months to reach this length.

Owing to the fact that the length of the tail fin varies between individuals of the same species and size, scientists have adopted a "standard length" which is the length of the fish from the tip of the nose to the base of the tail. A standard length of 55 mm. is equal to an entire length of approximately 2½ inches.

The black-head minnow is very prolific and is ideally suited to pond culture. Lord (1927; pp. 94-95) states:

The production of black-head minnows per acre on this basis stands at 201,971 at approximately 119 pounds.

Markus (1934; p. 118) attained a production of 4,144 young from a single pair of black-heads. It is difficult to distinguish the males from the females before the spawning season for the males do not possess their dark bronze color and pearl organs prior to this time.

This species may be found in streams, creeks, small rivers, ponds, sloughs, and lakes. Its distribution is rather spotted over the United States East of the Rocky Mountains. It has not been reported from the extreme Southeastern States.

## Stream-Spawning Minnows

These minnows, which include the horned dace and stone-roller, have entirely different spawning habits from the pond-spawning groups. They deposit their eggs in shallow running water. The male usually builds the nest in advance of the spawning period, excavating sand, gravel, and small stones near riffles. Not very much care is ordinarily given to the eggs after they are deposited, although the males of some species stay around the nest to protect the eggs.

The fact that these minnows do not naturally propagate in ponds is no reason why they cannot be so reared. Greater production per number of eggs of these species may be obtained than from the group where the breeders are left in ponds to spawn naturally. The problem of adults eating their young is eliminated. The eggs from these species have



Round Shiner (*Hybognathus nuchalis*)



to be taken artificially and hatched in running water.

### Hatching Troughs

The method of hatching is similar to the hatching of trout eggs, where the eggs are put on trays and set in troughs of running water. Troughs may be of any dimension, although 10 inches wide, 6 inches deep, and 12 feet long is ideal. A flow of 6 to 10 gallons of water per minute should run through this trough.

The tray frame to fit the above-mentioned trough may be made from  $\frac{3}{4}$ -inch wooden strips. The frame should be  $9\frac{1}{2}$  inches wide and 16 inches long. A fine grade of cheesecloth, or galvanized screen dipped in asphaltum, is tacked onto the wooden frame to hold the eggs. The eggs are spread out over the tray while it is under water. The trays are wedged into the trough at an angle to the surface of the water. The end of the tray next to the inlet should be set on the bottom of the trough and the end farthest from the inlet should be 1 inch beneath the surface of the water. The trough must be screened at the overflow end. The overflow should be regulated so that water is maintained at a depth of 5 inches in the trough. The outlet end of the trough should be about 1 inch lower than the intake end. The water coming into the trough must be clear and have a temperature of  $65^{\circ}$ - $85^{\circ}$ . A city supply may be tapped, or the trough lowered into the bed of a small stream to permit the required amount of water to flow through. After the hatching equipment is set up, the eggs may be taken from minnows inhabiting natural streams.

### Taking of Eggs Artificially

Many of the bait minnows that spawn in flowing water give off their eggs and milt readily and the spawn may be taken artificially. The taking of eggs and milt from minnows is not a difficult task to perform and a study of the following procedure will enable one to execute the operation with ease.

The breeders are usually seined from the streams. When the seine haul is made, without lifting the seine from the water, an attempt should be made to spawn the males and females in order to pick out the ones ready to give off their eggs and milt. Ripe females that are ready to give up their eggs should be placed in a separate container. Never strip females until ripe males are at hand.

To determine if minnows are ripe, in removing them from the seine, proceed to strip them. If the eggs come from the vent of the female as soon as a little pressure is applied to her belly, she is ripe and ready to spawn. The same procedure applies for milt in the case of the male. If the eggs come hard from the female and her belly feels rigid, or if bloody eggs appear on gently stripping, she is not ready to release her eggs. Save her for a later date or release her in the stream. In case a female be stripped and no eggs obtained, and her belly be soft and flabby, she has already released her spawn in the stream.

In the beginning of the spawning season it is very easy to find ripe males, for all the adult males will be more highly colored and ready for spawning. They remain in the spawning mood for some time. However,

ripe females are harder to find, and continue to become more difficult as the spawning season progresses.

To strip or spawn the fish, hold it as firmly and gently as possible, over a dampened pan, at such an angle that the eggs or milt will flow naturally towards the vent. With the thumb and forefinger gently press the belly of the fish, beginning near the head and moving toward the vent. Repeat this process until the fish will no longer give off eggs or milt. As soon as the eggs are stripped into the pan, the milt is immediately added to the eggs by stripping the male in the same manner as the eggs were taken from the female. This milk-colored milt contains the sperm that fertilizes the eggs. After the male is released, stir the milt and eggs gently with the finger so that the milt is sure to come in contact with all the eggs. Four or five pairs of fish may be stripped into the same pan. It is important to strip milt from the male on the eggs immediately after stripping each female. The eggs should be stirred gently every few minutes with the finger to prevent them from sticking to the pan, for the eggs of many of the minnows are adhesive.

About 10 minutes from the time that the eggs are taken they begin to lose their adhesiveness. After the last pair of minnows has been spawned, let the eggs stand for about 5 minutes and then pour off the excess milt by slowly tipping the pan to one side. Then slowly add water from the stream by letting it run in one side of the pan until it is about half full. After the eggs have settled to the bottom, slowly pour off the water. Repeat this process until the eggs appear to be free from excess milt or other material. The eggs may then be transferred to a larger can for transportation to the hatching trough. Water must be first put into the container and the pan with the eggs lowered into the water. By tipping the pan slowly, the eggs will float out of the pan into the container. The best method is to have a number of spawning pans and transport the eggs to the hatching trough with the pans one-fourth full of water. Never give newly fertilized eggs sharp or hard bumps. After the eggs are fertilized and cared for in the field, they should be taken to the hatching troughs as soon as possible.



Golden Shiner (*Notemigonus crysoleucas*)

### Releasing The Fry

The eggs of these minnows hatch in from 4 to 10 days, depending upon the temperature of the water. The warmer the water, the faster the eggs hatch. However, best results are obtained if the temperature is not above  $85^{\circ}$ . When the eggs hatch, the fry will rest on the bottom of the trough and, at this stage, they are helpless. Cut down the flow of the water through the trough so that the current will not carry them against the screen. About 24 hours after hatching is completed they may be released into the rearing pond. The fry will live on their yolk sacs for a few days.

Horned dace (*Semotilus atromaculatus*).—This minnow is often referred to as a creek chub. The horned dace is the prize bait of most anglers. Forbes and Richardson (1920; p. 123) state:

This species is reported by Jordan to reach a length of a foot and to be excellent bait, when of the proper size, for bass, wall-eyed pike, and pickerel.

The horned dace may be compared to a good hunting dog—when on the hook he works continually and is one of the hardest of minnows.

The horned dace is one of the first spawners in the spring. All the adults that mature in the fall spawn during the early part of the following spawning season. Spawning is prolonged by the females that matured late the previous fall and during the early part of the spring spawning period. Horned dace are easily stripped, for they give off their eggs and milt readily, and the number of eggs per female is relatively large, depending upon the size of the individual.

The horned dace grows very fast the first summer. Markus (1934; p. 95) states:

Many of the young hatched from these eggs and reared in a pond attained a length of  $3\frac{1}{2}$  inches by the latter part of September.

This length was attained at Rochester, N. Y. Leonard (1927; p. 39) found year-old individuals 3.7 inches long. These are standard length; that is, the length of the tail fin is not included.

Horned dace have a wide distribution in the United States and are found in small (Please turn Page)



streams, creeks, and rivers in the spring of the year. Late in the summer they may be found in quiet water. They have been reported from Wyoming to the Hudson River and from Canada to the Gulf of Mexico.

**Stoneroller** (*Campostoma anomalum*).—This minnow is usually tenacious of life and is one of the hardiest on the hook. It is common to find individuals 6 inches long.

The stoneroller spawns early in the spring. It ascends the fast-running streams to spawn and then goes back to the quiet pools in the stream. The male, during the spawning season, often has the entire upper part of his body covered with pearl organs. This species is easily striped. Their distribution in the United States is wide and spotted, being rather abundant in the Great Lakes Region, along the South Atlantic, and through the Middle West to Wyoming and Texas.

#### Natural Stream Spawners

This group of minnows, such as the common shiner, usually spawns in clear streams with a gravel or rock bottom. The males build the nest in the gravel and sand in advance of the spawning period. They stay over the nest and wait for ripe females to come and deposit eggs while he fertilizes them. In most cases the males stay with the nest. The spawning is similar to that of bass. It is rather difficult to obtain the eggs and milt from this group artificially. In some species, such as the bass, the females will not give up their eggs without injuring the eggs and killing the fish.

Minnows of this group may be propagated in small streams that are dammed off and screened, or by having the stream run into a pond. The stream is used for the natural spawning of the breeders and the pond for rearing the young. Common shiner (*Notropis cornutus*).—This is one of the most beautiful and conspicuous minnows of our streams. Its coloration, size, and durability makes it one of our best bait minnows.

The writer has tried a number of times to take the eggs from this species artificially, but has been unable to do so. No record of artificial spawning is recorded in the literature. However, the author did get a fair production of common shiners in a small stream that was dammed off. The breeders were left to spawn naturally.

The common shiner inhabits streams, creeks and rivers. Its distribution is through the Northern section of the United States, from Wyoming to Maine.

#### Artificial Feeding

Minnows can be successfully produced in ponds with sufficient aquatic vegetation. Fertilizer, such as cow and sheep manure or small quantities of sewage reduction sludge, added to the water stimulates the growth of vegetation and also serves as food for daphnia or water-fleas, nymphs and larvae of insects. A bushel of either cow or sheep manure should be added to a quarter-acre pond every 10 days. Care must be exercised, however, not to over-fertilize.

Minnows also feed directly upon a number of artificial foods such as shrimp meal, fish meal, cottonseed meal, middlings, bran, tankage, dried skim milk, and soy-bean meal. A mixture of shrimp or fish meal with some of the grain meals made into a mash and dried and ground, makes a good food. Bread

scraps are also excellent. Any of these foods that are not directly taken by the minnows serve as fertilizer for the aquatic plants, waterfleas, and nymphs of insects, which in turn make natural food for the minnows.

#### Number of Species Per Pond.

It is better to rear only one species in a pond, but frequently two species will do fairly well together. In those species where the eggs are taken, and hatched artificially, two or more species may be released in the same pond.

The best results will be obtained if an equal number of males and females are released to spawn naturally. The number of brood fish to be placed in a pond for natural spawning depends upon the number of breeders available and the size of the pond. A satisfactory crop may be obtained from 50 pairs of breeders in a quarter-acre pond, but it is more desirable to stock this size pond with 100 to 200 pairs.

#### Instruction For Care of Bait Minnows in Pails

Bait dealers should instruct anglers in the care of the minnows they purchase. They should not overcrowd the angler's container, even though it may mean a smaller sale. If the minnow pail is crowded the angler will probably lose his bait before he gets to fishing waters. The angler would then accuse the dealer of having weak minnows and would not return for further purchases. When the minnow pail is not provided with an aeration device the purchaser should be advised to aerate the water in his pail at frequent intervals while traveling on the road. Aeration of the water, or fanning the fish—a phrase that is often used—is accomplished by dipping up water and pouring it back into the pail. Repeat this process about a dozen times and the fish will have good water again. This operation picks up oxygen from the air and excess carbon dioxide in the water is released into the air. It is much better than changing or adding water from different water supplies.

If the angler has a long trip to make, advise him to put ice into the water with his minnows. Add the ice slowly until the temperature reaches about 50°. If the water temperature is kept at this point, the minnows will need less fanning, for cool water slows down the rate of breathing and picks up more oxygen than warm water. When the angler reaches the fishing ground, if the water in the minnow pail is colder than the body of water to be fished, warmer water should be gradually added to the pail. As soon as this is done the angler usually places the pail in the water to be fished. If this procedure is followed, the minnows will be more active and work better on the hook.

#### Identification

Fish are identified by keys. In order to work a key of the fishes, one must have some scientific training and be acquainted with the morphological structure of the fish.

If the propagation of a certain species is contemplated and you are not certain that the species at hand is the desired one, a few specimens may be sent to the Bureau of Fisheries, Washington, D. C., and the Bureau will identify them for you. To prepare specimens for mailing, preserve them in a formalin solution. Formalin may be purchased from a drug store. To one part of formalin

add nine parts of water. This will give a 10 percent solution. The solution should be made up in a glass container; usually a quart fruit jar is used. Place the minnows to be identified into the 10 percent formalin solution and leave them in the jar for at least 2 days. Then pour off the liquid formalin and mail the jar containing the minnows to the Bureau.

#### Crayfish

The crayfish, especially the soft-shelled individual, is very popular among anglers as a bait. In some sections of the country crayfish are referred to as crabs. This, however, is a misnomer for they are not true crabs. Crayfish will propagate naturally in a pond and they may be produced in the same pond with minnows. The shallow end of a pond in which crayfish are propagated should have a sandy, inclined slope running in depth from zero at its edge to a depth of 6 inches about 15 feet out in the pond. Here the young crayfish may be found during the night and early morning. This shallow water also makes a convenient place to seine for them. This is especially true of that species of crayfish known as *Cambarus virilis*.

Crayfish mate in the early fall. The breeders should be placed in a pond during August for production the next year. Spawning usually occurs in the springtime and mating in the fall, although both may occur during the winter. Eggs may often be found in the late fall. The eggs resemble a bunch of berries and are carried by the female underneath her abdomen, attached to her swimmeret appendages. They are so carried until they hatch. As soon as the eggs hatch, the young cling to the mother's swimmerets and remain with her until they can shift for themselves. The number of eggs carried by a female depends upon her size. Langlois (Bull. 132) finds that the average number of eggs carried by a 44-mm. (1¾-inch) female is 80, while a 102-mm. (4-inch) female carried 374. The eggs are of a dark color and about the size of BB shot.

Crayfish may be taken from natural waters such as swamps, lakes, rivers, creeks, and streams. They feed on aquatic vegetation and decaying vegetable and animal matter. They also attack living animal life if it is not fast enough to keep out their way.

All crayfish go through several soft-shell stages. Their outside shell is a chitinous skeleton to which their muscles are attached. The shell does not grow with the body so the crayfish sheds his outer shell and grows a larger one. As soon as he sheds his outer shell he becomes soft-shelled until the new one becomes hard. The crayfish that hatch in the spring molt or shed their shell a number of times the first summer. So a greater number of soft-shelled individuals may be found among this group. These medium-sized individuals are preferred by anglers.

There is but one satisfactory method of making hard-shelled crayfish soft-shelled. That is by feeding them and developing growth, causing the crayfish to shed the old shell frequently. When a bait dealer propagates his own crayfish for bait, he may sort out the soft-shelled crayfish from his pond every 2 or 3 days and have soft-shelled individuals on hand continually during the summer. These individuals may be kept soft for a week or more by keeping them on ice. If they are kept cold metabolism will slow



up and growth will be retarded, with the result that the shell will not harden very fast. The writer has kept soft-shelled crayfish in a dormant stage in a refrigerator for 2 weeks and they were still soft and in good condition. When they are removed from this cold storage to warmer quarters, it is best to do so gradually. They must be used soon after they are removed from cold storage, for the shell often hardens very rapidly after they warm up and become active. There are several species that may be used. Langlois recommends *Cambarus rusticus*. Embody recommends *Cambarus affinis spinirostris* for the reason that it is prolific and because the shell is never very hard. The Fairport, Iowa, hatchery, *Cambarus virilis* is a prolific multiplier in the bass ponds.

Fishermen should keep ice, covered with moss, in the bottom of the soft-shelled crayfish container.

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### CLEANING UP THE SCHUYLKILL

For a number of years there has been much talk about reclaiming the Schuylkill River Valley and removing the filth and restoring the river to its former beauty. Much work has been done, but, in order to bring about a completion of the project, it is necessary that every organization and individual interested lend their combined efforts. It is proposed to organize a cooperative group composed of two representatives from each

organization for the purpose of actively carrying on the necessary work.

Already a comprehensive survey has been made by the U. S. Army Engineers who find that the river's condition is due largely to the great volume of coal silt, which for years has been allowed to enter the headwaters of the river, and which has moved down stream, silting up the channels, destroying their value for navigation and recreation and increasing flood hazard. The sources of these deposits are (a) from the active collieries and coal preparation plants, and (b) from the erosion of great accumulation of coal waste in dump piles, from past mining operations.

The plan of the District Engineer, as to the first source, contemplates that the State compel the active mines that have not already done so, to provide measures for settling out process waters used in washing and preparing coal. The fine coal thus reclaimed has a ready market so that the process should prove profitable.

The second source may be prevented by constructing dry masonry retaining walls along the bases of the old dumps, to retain their toes and prevent under cutting by streams. Twenty-four separate units have been planned at an estimated first cost of \$2,433,000 of which amount all work located in Schuylkill county has already been authorized as a WPA project at a total cost of \$2,160,771.

Next, the coal now in the headwaters is to be caught in its down stream movement by an intercepting basin created by the construction of a dam across the main river at Auburn and a new channel built, by-passing the basin. This will provide a storage capacity of 2,167,000 cubic yards which should be sufficient to intercept and hold for future recovery, down stream movements of coal waste from uncontrolled sources in the headwaters. The estimated cost of this improvement is \$1,738,000.

The plan developed for cleaning the main channel between Auburn and Fairmount Dam provides for the removal, by dredging, of the silt and coal waste, for which spoil disposal areas are found to be available along the river above Norristown and for storing the material in such manner that it can be reclaimed for its fuel content.

For the material now in the channel below Norristown, for which no spoil areas are available, the plan provides for letting this material move down stream by normal river action for eventual removal by the Government from the tidal sections in the course of the maintenance and dredging of the navigation channels.

The estimated first cost of removing and storing the material above Norristown is \$6,146,000; for prevention of erosion of old mine dumps, \$2,433,000; for intercepting and desilting dam and removing waste from this dam \$1,738,000; a total of \$10,317,000.

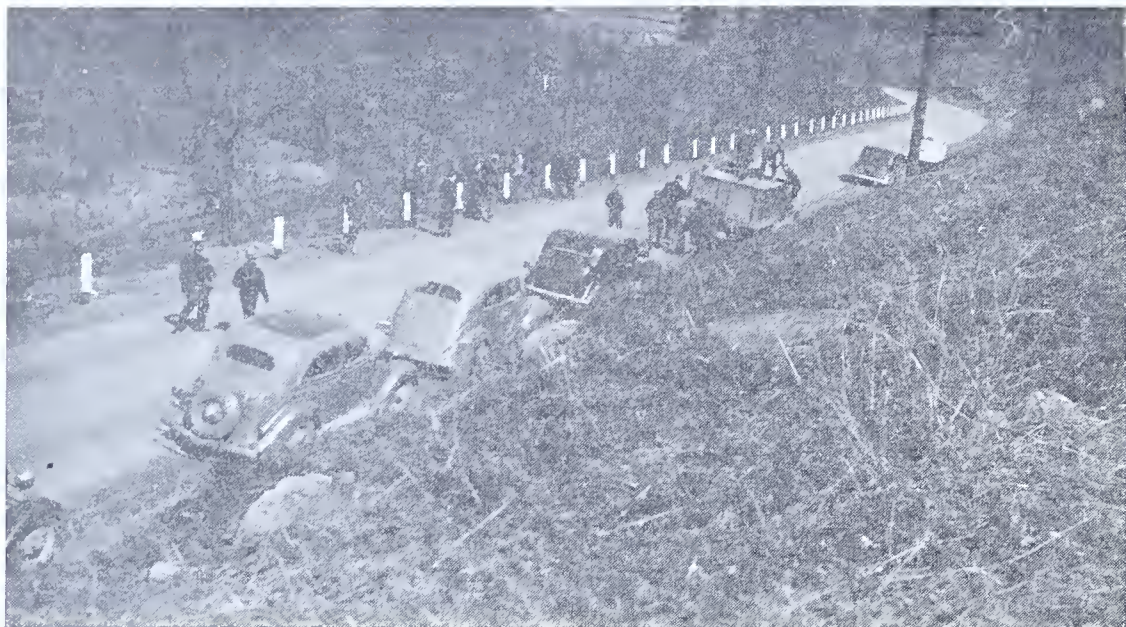
The report of the Engineers also contains recommendations for supplemental flood control work near Reading at a cost of \$1,809,000 which the District Engineer estimates would reduce flood losses about \$187,000 annually. Supplemental flood protection at Norristown is also suggested, costing \$850,000 which would save flood losses of about \$123,000 annually.

Rehabilitation of the old canals for restoring navigation is not recommended as it would cost \$3,737,000 but this might be justifiable at some future date if the river was cleaned up. It is suggested, however, that following the general abatement of pollution and the removal of coal waste and silt, about five of the old navigation dams could be improved at a cost which would be justified by assigning reasonable values to the resulting intangible and recreational benefits to five pools thus created. The estimated cost of this work would be \$36,000.



More action in the casting events at the picnic of the Consolidated Sportsmen of Lycoming County at Shore Acres on the Loyalsock.





Part of a 12 car caravan stopping to restock the West Branch of the Clarion River at Tambine with legal size trout.



Dan Lindberg, driver of the Fish Commission's tank truck, gave the sportsmen's caravan real co-operation in stocking trout in the West Branch of the Clarion River.



Mike Polaski of the Johnsonburg Sportsmen's Club stocking legal size trout in the West Branch of the Clarion River.

## SEALING ABANDONED BITUMINOUS MINES AS A MEANS OF REDUCING ACID STREAM POLLUTION

(Continued from Page 3)

in order that all surface run-off and intermittent streams do not enter the mine.

After the complete sealing of the openings, the air in the mine loses its free oxygen and oxidation of the pyrite is arrested.

To date at Bitumen, where the Kettle Creek Coal Company operate, 16 mine main entrances from which acid water emerged have been sealed. Approximately two thousand cave-ins have been blasted shut and ditched. Some of the early type concrete wall impounds have been removed and the masonry type installed.

The result of this work was not immediate, but if one examines the catchment basins today there are mosquito larva and tadpoles to be found.

The minimum acid reduction of the water from these mines was 45% and the maximum was 78%. While these operations do not completely remove the acid, they have so reduced it that the alkaline water in the streams will neutralize what acid remains in the mine discharge.

The sealing work was discontinued in June, 1938, because the sponsor lacked funds. It is expected that work will be resumed as soon as funds are available.

The peak year for acid in the river at Lock Haven was 1932, when it contained 82 parts per million. In the summer of 1938, it contained 20 parts per million and with the complete sealing of the three remaining mines at Bitumen which have openings that permit air to enter into previously sealed mines, it is expected that the water of Kettle Creek and the river east of Kettle Creek will become neutral. Other work contemplated is the sealing of the mines near Kato which will soon be worked out and the sealing of 8 drifts at New Garden. This does not include all the acid sources in the district. Those remaining are from active mines and the acid effects from these areas will be local and will only affect portions of several small streams.

The following tables show the progress of the abandoned Bituminous Coal Mine Sealing Project for Pennsylvania and were compiled from the last report (July 1, 1938), of the Pennsylvania Department of Health under whose jurisdiction the work was done. The figures shown in the tables are applicable only to the West Branch of the Susquehanna River which drains the Sprout State Forest District and parts of adjacent districts.

Table No. 1 shows that 66 mines have been completely sealed with work remaining to be done on 9 mines. A total of 33,358 openings have been sealed.

Table No. 2 shows that there has been a total acid reduction in the West Branch of the Susquehanna River equal to 216,605 pounds per day. The table further shows the acid reduction in the five counties concerned from mines completely sealed and from those on which the sealing has not been completed.

The Mine Sealing Project was a cooperative one between the Pennsylvania Department of Health, the United States Public Health



Service and the Works Progress Administration. A total of \$315,220.22 was expended by these agencies in the area covered by this report.

The following table is the summary of the work completed on the abandoned Bituminous Coal Mine Sealing Project for the entire bituminous area in Pennsylvania as shown by figure two.

### MINE SEALING

January 1, 1935 to January 31, 1939

#### Summary

##### Work Completed (Construction)

Mines completely sealed .....	592
Mines partially sealed .....	164
Closures made .....	99,089
Average number of men employed	1,572

#### Costs

Total cost—our figures.....	\$2,431,135.65
Cost per opening (Average).....	17.63
Cost per ton of acid (Average)...	11.50

#### Results

Acid reduction in pounds per day (Measured) .....	726,099
Additional claimed (No definite measure) .....	225,900

#### Survey Results

Total Mines listed .....	7,302
Abandoned Mines remaining to seal .....	1,739
Acid load active mines—lbs. per day .....	3,187,426
Acid load Marginal mines—lb. per day .....	513,322
Acid load Abandoned mines—lbs. per day .....	2,184,807
Total all mines—lbs. per day	5,885,625

### "FISHERMAN'S PARADISE" FOR WESTMORELAND

A "fisherman's paradise" for Westmoreland county anglers will probably be completed by next spring, it has been announced.

The new project is at Greenwalt dam in Unity township. It will store nine and one-half acres of water on a 23-acre plot of ground owned by the state and supervised by the Fish Commission.

In addition to fishing facilities plans have been made for an out-door recreation center, with a picnic grounds and a bathing beach.

The new "paradise" will be different from that at Bellefonte, where the famed trout are had, in that it will be stocked with "warm water" fish, including perch, catfish, bluegills and other popular species of warm water fishes.

The idea of providing an ideal fishing spot for the county was formed more than two years ago in the mind of one of the leading sportsmen of the Westmoreland association, Welty M. Dom, of Greensburg, former president of the sportsmen's association of both city and county.

The opportunity presented itself when the county commissioners bought at a tax sale a plot of ground in Unity township owned by the Donohoe water company on which site the dam was located, not far from Crabtree. Under instructions issued by the Sanitary Water Board, the commissioners would have had to tear down or rebuild the old mine

dam which had been condemned as unfit, and which last year did gradually wash out. However, Sportsman Dom persuaded the commissioners, with the assistance of Commissioner James Kell, of New Alexandria, to deed the land to the Commonwealth for the purpose of rebuilding the dam under a project sponsored by the Fish Commission.

The idea then was "sold" to the Fish Commission by Dom who credits the greater part of the successful battle for sponsorship to one of the members of the commission, Fred McKean, of New Kensington. McKean's argument was received favorably by Fish Commissioner Charles French. Another Greensburger, Oliver M. Deibler, former fish commissioner of the state, also spoke on behalf of the project. Then county fish warden, Sam Henderson, of near Greensburg, aided in the fight and formulation of plans for the project.

The final result was that the State Fish Commission appropriated a sponsor fund of approximately \$5,600 for the Greenwalt dam. Federal government aid came in the form of WPA project, the WPA providing the labor and the fish commission the materials. As set up by the WPA, the project totaled about \$28,000. Eighty per cent of the cost is for labor, 20 per cent for materials.

Work was begun on May 17, 1939, Foreman William Peoples of Greensburg, reported.

Although the project calls for employment of about 65 men, at present 24 workers are engaged in the task of increasing the breastwork embankment from six to 12 feet at the top. It is necessary to make an excavation and fill of 3,500 cubic yards, in addition to the building of a concrete "blow-off tower" at the one side of the original spillway which will be retained. The tower or drain, by which the water of the dam can be reduced to any desired level, requires the placing of 25 cubic yards of concrete, now in progress.

The men working at excavation and fill are aided by a "scimmer" scoop and two trucks. Plans have also been made for the clearing of brush and undergrowth around the lake, possibly the erection of shelters or huts, placing of picnic tables at the wooded section by the dam, and space for parking automobiles.

A natural spring near the dam will provide a sanitary water supply. In addition to the doubling of the width of the breastwork, a 14-inch layer of rip-rap—old brick to be used from nearby abandoned coke ovens—will be laid on the inside slope to prevent the water from washing out the dam.

The creek, from which water will fill the dam, has a normal flow of about 50,000 gallons per day, Foreman Peoples reported. The stream drains an estimated area of three square miles, having two branches in separate valleys each about a mile long. Recently, a rain storm was seen in a nearby section, but not a drop of water fell at the project. However, one hour later the grass-grown basin of the dam, where the creek water is being piped through, was flooded to a depth of several feet.

There is no time limit specified on the project, but it was said that actual work on the dam will be completed in time to have it filled with water for fishing next summer. The commission plans to stock it in the meantime with fish—warm water fish only.

In such manner the dream of Sportsman Welty Dom for an ideal fishing haunt in Westmoreland county will become a reality within little more than a year's time.

"Worrying cannot help us!" thundered a philosopher to his audience.

"That makes it mutual," shouted a wag in the back seat, "because we can't help worrying either!"



Caught with the evidence. A watersnake, with a fish it had taken, partially digested.



# What's Chewing Up Those Newville Trout?

By E. L. KING

WHAT is biting living chunks of skin and flesh out of Big Spring trout? Is it a snake? A snapping turtle? A fishing 'coon? Or possibly a big cannibal rainbow or brown?

No doubt many puzzled fishermen asked themselves and buddies these questions during the past season, and wonderingly speculated on the phenomena of so many active living fish with chunks of skin and flesh bitten or torn away. Conservatively estimating, the author of this article believes he examined a score of these mutilated trout before discovering the probable answer to the riddle, and it is his hope to have eliminated at least one of the culprits.

Many fishermen working the stream commented on the condition, but for those who did not fish Big Spring or who did not run afoul of the phenomena, perhaps a word or two of explanation may be in order. Frequently after landing a trout, the angler would be chagrined to find two or three up to half a dozen or more spots on the underside entirely devoid of skin; bare, raw, red flesh showing in circular spots up to the size of a dime. While most of these wounds were on the underside, some fish were attacked on the side of the body also, mostly the rear half of the fish, but even sometimes up along the thicker part back of the gills. Usually the scars were in various stages of healing, nature apparently having repaired the hurt in some; others were raw, unmistakably recent. One fish in particular, badly mutilated, came floating downstream of an afternoon, belly up and feebly kicking. Examination revealed eight fresh wounds, four on each side, almost evenly spaced, from about the middle backward to the tail. This

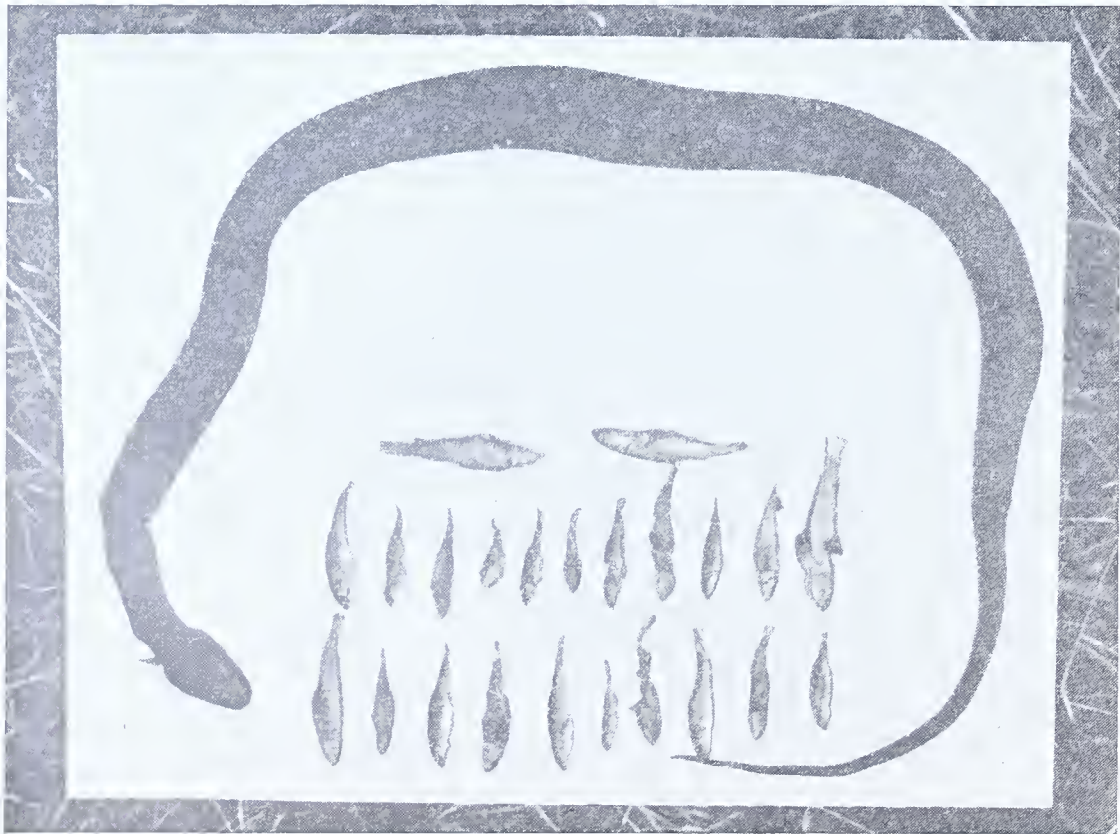
fish, a nice one at that, was too badly bruised up to give nature a chance; it was doomed to only a few more painful moments of life.

Never having encountered a like condition, the situation puzzled and angered the writer. Apparently here was wholesale murder of fine fish with no visible enemy lurking about. After the wife caught a particularly nice rainbow at one of the chronic spots, hope arose that perhaps the culprit was out of the way. But such was not the case. Sometime earlier, a fine trout, a big old lunger, holding up under an overhanging clay wash-out, had been marked down. Elusive and hard to get at probably accounted for his presence at such a hard fished spot. Ever hopeful—stealthily stalking—the big fellow's hide-away was approached early one evening. Suddenly there was a splash beside a protruding rock almost mid-stream, then a big square tail whirled out and slapped the water. Here was the big boy at last and in a playful mood! Closer and closer the dry fly was already snapping out in the air, reaching, reaching, out just a trifle farther before drifting down. And then—something was wrong! The fish, not the old lunger after all, but a good 12 to 14 incher whirled and whirled, twisted and struggled. It was not playing; it was fast! From a distance it seemed there was a thick brown rope attached to the belly of the fish, about midway between gills and tail. The rope trailed back under the big flat stone protruding from the stream. The next 30 feet were covered in a hurry. A snake, an immense specimen with a big ugly head, had hold of the fish, right in the belly, about midsection, and could not seem to let go. Jumping on the snake with both feet, it was necessary to

kick the fish loose. Luckily the latter seemed unharmed and scurried away. Then came the problem of killing that snake. Standing in water, too deep to work freely and still not daring to get off the reptile, brought about a difficult proposition. The size and strength of the predator were added complications. First, the pocket scissors were tried, but the neck was too thick for decapitation. The problem was finally solved by working one booted foot out until the big ugly head was pinned flat to the bottom. Then the scissors were jammed down through the head time and again, right between the eyes. This snake was enormous with a head large enough to easily swallow a 12 to 15 inch trout. From the location of the reptile and the manner in which it grasped the big fish, there is a reasonable likelihood attacks such as these accounted for many of the wounded fish.

The tragic part of the whole thing is that the same phenomena of mutilated fish may be observed at other parts of the stream. The attacks are apparently rather general. It is hard to estimate how many fish may be gulped down outright or injured severely enough to float away and die. Puzzling the writer is the manner of attack, never before having met up with a snake inflicting flesh wounds on fish. Oftentimes in the process of swallowing a fish, puncture wounds may be observed, but never chunks of skin and flesh torn away outright.

Incidentally Newville's Big Spring is a critically snake infested trout stream. The damage to be inflicted between now and next trout season will probably run beyond estimate. The stone walls and weeds bordering the stream apparently offer perfect refuge for vermin. There are many hundreds of small trout in this little stream and prospects for the next season should be excellent—if the snakes do not get the fish first.



Williamsport Grit Photo

Just how destructive a watersnake may be in trout waters is aptly illustrated by this photo of a snake killed at the Muncy Trout Ponds of the Consolidated Sportsmen of Lycoming County. When opened the reptile was found to contain 23 brown trout ranging in length to 4 inches. It was killed by W. H. Corson, chairman, and several members of the association as they netted trout for stocking purposes.

How fast can a bass strike? Carl Priday, fishing in a dam near Coatesville, caught an 18-inch bass, and in its stomach was a chimney swallow, a bird noted for its swift flight. Scores of these birds skim over the surface of this dam each day at twilight, and it was thought the bass had gobbled one in full flight is the report.

### FACTS OF LIFE

Baby Ear of Corn: "Mama, where did I come from?"

Mama Ear of Corn: "Hush, dear, the stalk brought you."

### POOR SERVICE

"You can get anything from a mail-order house," remarked the lady next door.

"Everything, alas, but a male," sighed the spinster.

### THAT'S DIFFERENT

Broker: I put a friend of mine on his feet three times in the last five years.

Jones: Oh, that's nothing! I put a friend of mine on his feet fourteen times last night.



OVER 2000 AT BIG TIOGA MEET

More than 2000 persons attended the annual outing sponsored by the Tioga County Consolidated Sportsmen's Association, at the camp of Walter L. Bailey of Wellsboro at Bradley Wales Park, above Tiadaghton.

The softball game between an all-star team representing the Crooked Creek Valley League, and Westfield, was won by the latter, 12-6. Players from Asaph, Holiday, Niles Valley, Hammond, Tioga, and Spring Brook, played with the all-star outfit.

The fox chase was won by a dog owned by J. L. Kernan, of Hornell. Second and third places went to dogs belonging to L. R. Cloos, of Middlebury, and Clyde McEvans, of Blossburg, respectively.

First dog in from the coon chase was owned by Mester Mase, of Liberty. Second place in the first line went to J. L. Kernan's dog. Second place, second line, was a tie between dogs owned by J. B. Ross, of Williamsport, and Charles Bartholomew, of Middlebury. Third place went to Mester Mase's dog.

The running deer shoot was won by Norman Outman, of Leetonia. First place in the small bore rifle shoot went to Ferd Dunham, of Wellsboro, and first and second places in the fly casting contest, to J. Harvey, of Hammersley Forks, and Thomas E. Evans, of Mansfield, formerly of Wellsboro. Harry Root, of Wellsboro, and Elmer Smith of Mansfield, to first and second places in the horse-shoe pitching contest.

This was the first event of the kind to be staged by the Tioga county group. A similar outing will be held in 1940, according to present plans.

KILL WATERSNAKE WITH 30 YOUNG

Apropos of watersnakes, the following interesting report has been received from Elgie McCrory, secretary of Roscoe Sportsmen's Association, Greene County.

While fishing in Ten Mile Creek, Greene county, on July 22, near two men whom I didn't know, a watersnake came swimming from the opposite shore. One of the men was fishing a fly rod plug. He cast near the snake and it struck at the lure but missed. It then went out of sight under the water only to appear again between the two fishermen, swimming toward shore in back of them.

This called for action and, as one of the fellows had a pistol, he was given a chance to shoot it. He **didn't miss**. Now this snake was a good sized one and since it was swelled up in the midsection, we decided to open it up and see what it had eaten. We were surprised to find that it contained **30 small snakes** to which it soon would have given birth and added that many to the snake population in our stream preying upon our fish.

When we were ready to fish again, we made ourselves acquainted and got to talking about clubs and the ANGLER. Then I received a surprise when one of my companions showed me his special warden's button. He was James Miller of Mather and his companion was his brother. James had killed the snake.

P. S. We Roscoe fellows have a camp called "Wahoo" on Ten Mile near Jefferson and fellow fishermen are invited to drop in and spin tall or short yarns with us.

Fishing For Shad with Flies, Lures

By HIRAM K. KRAMER

There are several kinds of shad. The ones that I have fished for and caught are known by various names such as herring shad, hickory shad and hickory jacks. One man named them Susquehanna salmon, a name often given to the pike perch caught in the Susquehanna River.

The place to which I go to fish for them is on the west side of the Susquehanna River between Conowingo Dam and Havre de Grace, Md., at a place called Rock Run and in water known as tidewater.

About the middle of May these fish ascend the Susquehanna River, and its tributaries, for the purpose of spawning. Generally, I believe, they lie around the pools during the most of the day about two or three hours before sunset, then they start moving upstream, feeding as they travel along and, each year, traveling along the same channel in the river. Therefor, if you anchor in this channel, you are lined up for some good sport.

The manner of fishing for them is as follows: You anchor your boat in the channel in which they travel, which is swift water and, if you desire the best of sport, use a fly rod. Attach to a heavy bass leader either a white bucktail fly or a lure such as a drone or small metal lure or most anything of this general description, tending, however, to white or nickel. Feed out a fairly long line and the swift current will work the fly or lure in a lifelike manner.

You now sit in the boat holding the rod in such a manner that the line can run freely from the reel. In a short time you are rewarded by a strike and, if the shad is hooked (which does not always happen) you have a

good flashy fight facing you. They often leap from the water in their endeavor to escape and the fact that you are fishing in the swift current adds to the battle.

There are plenty of shad, so, if conditions are right, you have much sport in store for you. In a few hours, one day, I hooked into twenty of them. The fact that swift current manipulates the fly or lure makes it possible to use any kind of rod, but when it comes to fighting the fish, you naturally have your greatest sport with the fly rod. If you use a fly rod, it is best to use the heavy bass weight, because of the swift current.

The shad I caught ran from 14 to 20 inches in length but I feel sure that considerably larger ones have been caught. There is the possibility of catching rock fish, otherwise known as striped bass while fishing for shad. One day, while using a large white bucktail for shad, this fly was hit by a six pound rock fish which gave me a very fine battle, for striped bass are great fighters and I was using a fly rod at the time. However, six pounds is not heavy for rock fish as I believe they attain a weight of 30 or 40 pounds.

THE AGE OF CHIVALRY

I rose and gave her my seat;  
I could not let her stand;  
She reminded me of my mother  
With that strap in her hand.

"Tax" comes from the Latin taxare, "to touch sharply." No need to whittle a point for that one!

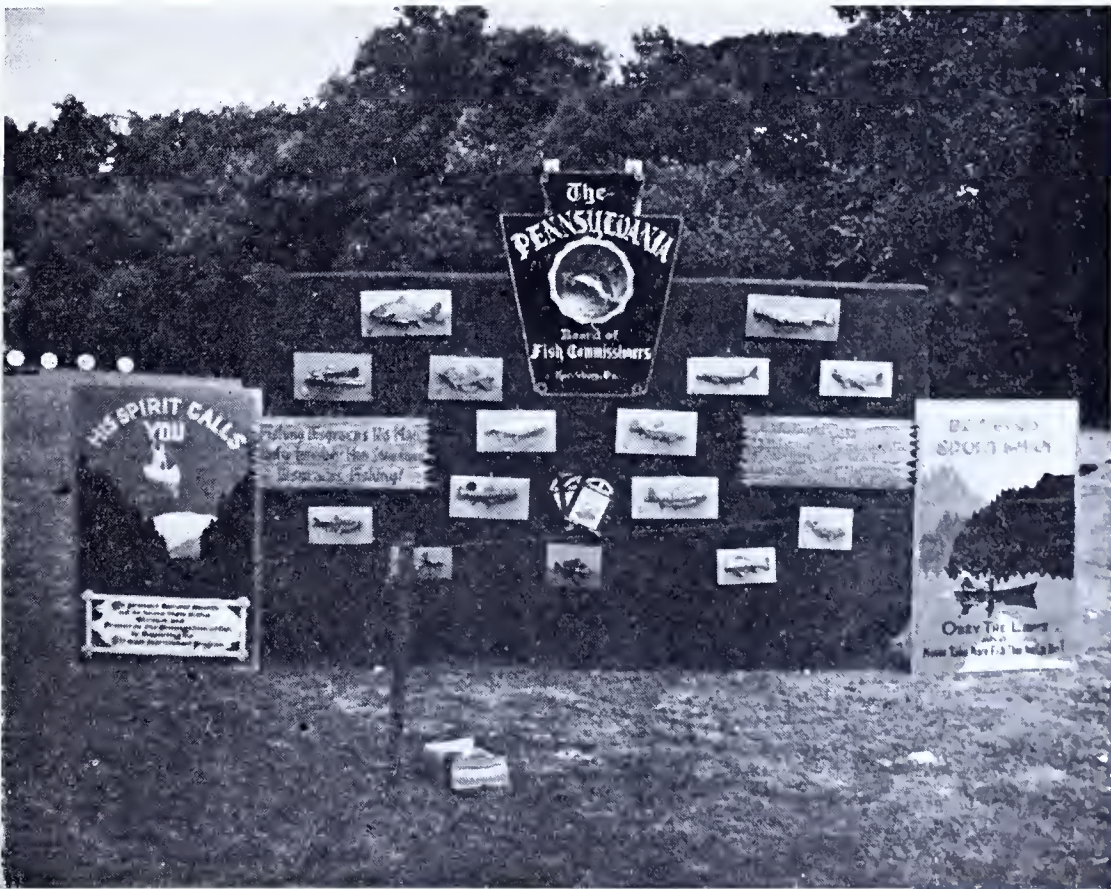


Photo by Howard George  
The Fish Commission's exhibit at the Field Day held at Hempt's Meadow, along the Yellow Breeches Creek, Cumberland county, by the Harrisburg Hunters' and Anglers' Association, the Mechanicsburg and New Cumberland Sportsmen's Associations on August 12. Thousands of sportsmen attended and enjoyed a splendid program of events.



## REPORTS CATCHES GOOD IN NORTHWEST

"I am not a real estate promoter or anything like that", writes Ivan E. Burkley of Cambridge Springs, Divisional Director of the Crawford County Branch, Pennsylvania Sportsman's Council, "but, I believe in making known the local results of the fishing in our waters. Other states advertise what wonderful fishing they have. But, unless our boys hear what is being done in Pennsylvania, they will think there are no fish in our waters.

"We all know we have had some terrible hard rains. For a while it was a case of not enough rainfall. Then the rains came and it was a case of too much rain. Nevertheless, the boys who stuck to it, eventually showed results.

"The targets musky taken from French Creek here at Cambridge Springs this season was Clyde Beers' 50 inch, 26½ pounder. Next in size was Police Chief Jim Rhoades' 47 inch, 24 pounder. Two wall-eyes of 7¾ pounds measuring 30 inches were taken by Mrs. H. L. Thomas and Bill Henning respectively. John Wilcox of East McKeesport, has taken 2 muskies of 30 inch length so far. Many catches of 1 to 2 pound bass of different species have been reported. Charles Jones and Paul Woodring have each taken 24 inch muskies. Charley Rodamaker has 2 7 pound wall-eyes to his credit. Donald Woodring leads the long list of 2 pound wall-eye catchers. I'm not fooling either when I say hundreds of pounds of carp have been taken from Grant Street carp grounds here in town. The creek is loaded with carp at this point. The sewage attracts them and the boys catch them for the sport on light tackle.

At this point I may as well let the boys in on a not too widely known secret for catching carp. Take common wall paper cleaner. Mix it thoroughly with a liberal quantity of corn meal and flour. Then top it off with some vanilla flavoring. Another good bait is mashed potatoes mixed with corn meal and flour with vanilla flavoring. This bait is of proven quality as Lester Newell took 14 carp at the Grant Street bridge at one sittin'. So there you are boys, go to it.

## SCHOOL BOY LANDS 19½ INCH RAINBOW

One of the record trout catches of the season was registered to the credit of Robert Knepp, 15-year-old Belleville schoolboy, who hooked a 19½ incher in the West Branch of the Kishacoquillas. The trout was a rainbow and tipped the scales at two and a three-quarter pounds. Robert is a resident of Mechanic Street, Belleville and proudly displayed his catch to admiring anglers.

## LAD, 7, LANDS 4 POUND BASS

His first fishing trip was a lucky one for seven-year-old Jimmie Heffran III, of Speers. He went fishing with his father, J. Harold Heffran, to the headwaters of the Allegheny River. On his return, he showed a four-pound bass which he caught on his own rod and line.

It was Jimmie's first fishing in any stream.



This splendid catch of wall-eyed pike is typical of catches of these fine game fish in Lake Wallenpaupack.

## ANNIVERSARY MEETING

On September 13, the Pleasant Gap Sportsmen's Association held their first anniversary meeting. After a short business session, moving pictures of Game Life and Conservation were shown by Randolph Thompson of State College, which was followed by refreshments enjoyed by all.

During the course of the meeting the activities and achievements for the past year were listed. It was shown that the club was to be complimented on their fine work. With a membership of only fifty members, the following activities were undertaken. Besides holding eleven regular and one special meeting, the club held three outdoor shooting matches, and about fifteen indoor matches. They sponsored a Junior Sportsmen Club known as The Future Sportsmen of Pleasant Gap. They also sponsored the construction of a camp in what is known as Greens Valley for this Junior Club. During the winter and spring months the Junior Club with the co-operation of the Senior Club made shelters, distributed 42 bushels of corn, 30 rabbits, 11 pheasants, 600 legal sized trout and 2000 fingerling trout. The Senior Club also sponsored the planting of 12,000 trees in this locality. At the end of the year the club in a financial way is perfectly sound. Plans for the future call for the construction of a permanent rifle range, and organization of a rifle team and archery team. The next meeting which will be held in the Pleasant Gap Grange Hall in October will be a Booster Meeting.

This club has shown a very enterprising and active spirit and with a membership of fifty has undertaken and accomplished splendid work. They have set a goal for many clubs to strive toward.

## "R" FIELD AND STREAM PICNIC ON OCTOBER 1

Announcement has been made by President Dave Groy of Hershey, that the third annual picnic of the "R" Field and Stream Association of Lebanon county will be held at the Pleasant Hill Gunning Club, near the Lebanon County Fair Grounds at Lebanon, on October 1.

A varied program of events, looked forward to with keen anticipation by sportsmen in the central counties, will feature the meet. Included on the program will be the Lebanon County Championship Trap Shoot, the Lebanon County Championship Skeet Match, amateur and pro, bait and fly casting contests, amateur and pro, a bench dog show for all types of hunting dogs, archery, and a White Flyer special shoot. A door prize will also be awarded.

The association extends invitations to fellow sportsmen to attend.

## THE SIMPLE MAN

You never heard him boasting loud,  
His name is seldom in the press;  
He never tries to sway a crowd,  
He doesn't talk about success.

He doesn't think that wealth and fame  
Are all that really are worth while,  
Nor crave the popular acclaim  
Before he'll condescend to smile.

He merely goes along his way  
And daily does the best he can;  
And those who know him learn some day  
The greatness of the simple man.

—Anon.



## INTERESTING COMMENTS ON PENNSYLVANIA BASS

Was the smallmouth bass native to streams of Pennsylvania west of the Allegheny Mountains? Relative to this pertinent question concerning our favorite Pennsylvania game fish, we quote the splendid letter received recently from Royden J. Taylor, angler-conservationist, of Indiana (Pa.).

My recollection of fishing goes back to about 1884 or 1885 on Blacklick Creek, tributary of the Conemaugh River. I wasn't fishing in those days but I toddled along the stream with my Dad and uncle, absorbing fishing lore and experience. In a year or two I began to catch fish of one sort or another. I spent all my summers along this stream from that time until 1902 when all fish were destroyed by the coal washer at Wehrum.

Now from my earliest recollection Blacklick Creek was literally swarming with bass. They were taken as a matter of course. This is what makes me believe that bass were native to these western Pennsylvania streams. It isn't reasonable to suppose that if the first stocking was done in 1863 and further stocking was concentrated on the eastern seaboard, enough parent bass could have been transported into this isolated country to produce such a vast amount of fish in only twenty years time. So far as I ever heard there were always bass in Blacklick. You could see them by the thousands, any time the water was low.

To understand this you must realize that this was very isolated country. Roads were bad and only those who lived within ten to fifteen miles of the stream ever saw it. There was a railroad across the stream at the town of Blacklick. The rest of the stream above that was considered "wild country". There was a large dam across the stream at Campbell's Mills near the mouth. I doubt if any bass could have passed over this dam. In the pool below it they caught large "salmon" or "pike" which of course meant the walleye.

I never heard of one of these fish ever being taken above this dam.

The stream above was the best "fishing" stream I ever saw, or expect to see again in Pennsylvania. Besides there were caught more bass than we ever had taken from holes, and a lot faster, too. We were learning a little every day.

There was another lesson we learned but didn't take to heart. It was too much work. A stranger moved to town from the headwaters of the Susquehanna, west branch. He fished the holes, too, but instead of setting his pole he kept his minnow continuously on the move. He took bass when we didn't with our poles just set.

Even in those days there was a law against using certain devices for taking fish. But I cannot remember that it ever reached the stream. One way they caught fish was to build of stones a dam in the shape of a "V", with the point downstream. Then it was said they placed a net at the "V" and caught fish in it as they moved up or down stream. I never saw a net but saw a great many of these "V" dams. There were rumors of dynamite and of lime. I guess this was done at night because I never saw any evidence of it.

About twice a summer some of the young fellows would go gigging. They covered about two miles or less, of shallow water with two or three gigs and a couple of torches. Once, when about ten or eleven years old I was taken on one of these gigging trips. I remember seeing in the light some very large bass darting around and these usually escaped. For some reason this gigging died out. It was too much effort. Fish were too easy to take in day time.

Another method I have seen used by one or two farmers who lived along the stream. When they wanted a bass for supper they just waded into the shallows chased a bass under a rock and then tapped the rock with a sledge. When the rock was turned over out floated the stunned bass and they had their supper.

What sticks most in my mind about all this is that such illegal methods of fishing never seemed to deplete the supply of bass. There were always fish. And no one took a lot of fish at one time, unless it might have been the netters. Although it was no trouble to catch fish it was rare to see anyone coming home with more than a dozen bass, usually less than that. These gigging parties, some six or eight men, were content to bring home about twenty bass. They were after big fish, not a large quantity. I don't believe that of all the men and boys who fished that stream in the early days one of them would have kicked at the present limit of six bass.

I am sure that if bass had been recently introduced in these streams about here people would have talked about the new kind of fish. Everybody who fished, fished for bass and took them as a matter of course. I know positively that back before 1890 there were lots of bass in Twolick Creek and Yellow Creek besides Blacklick Creek. This is personal knowledge. I heard of fine bass fishing in both Big and Little Mahoning Creeks. These were too far away for horse and buggy days, although only about a half hour's drive now. Bass are still stocked and caught in Little Mahoning but the main stream is polluted.

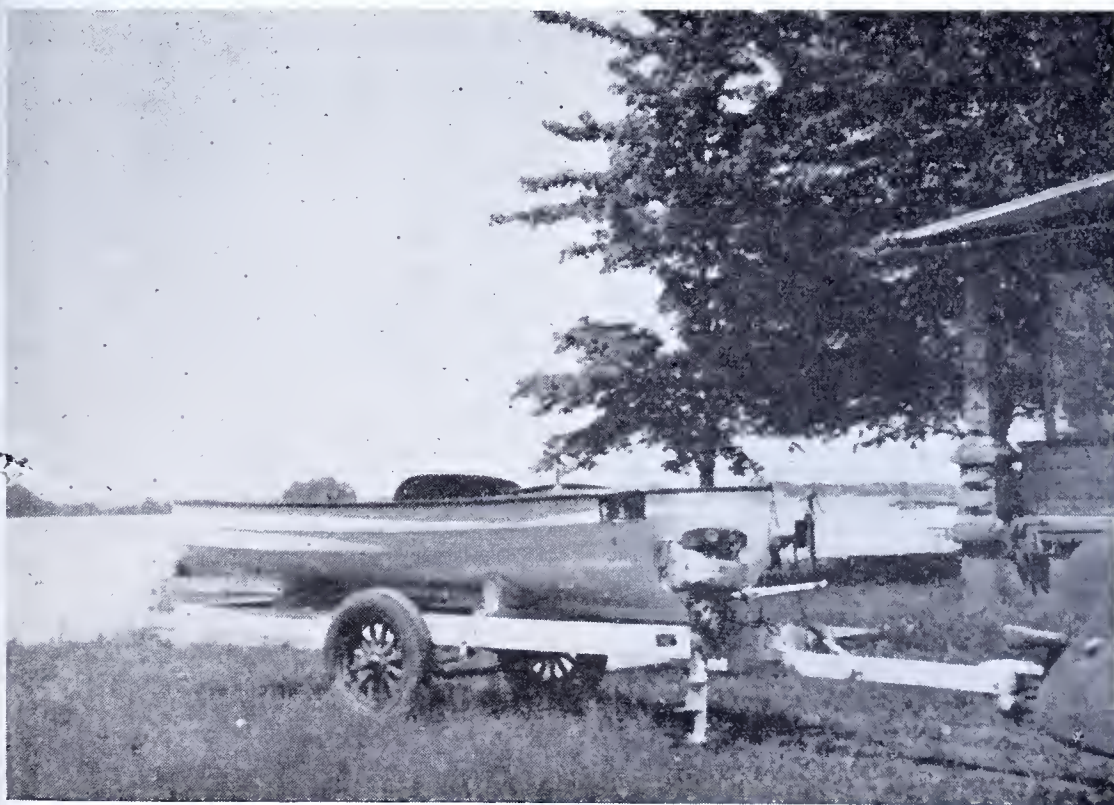
At the same time we caught bass in these streams they were taken in the Conemaugh River, up as far as the dam at Seward. They also got some very large walleyes in this pool below the dam, suckers, catfish, sunfish, and in the early days large numbers of yellow perch. These didn't seem to multiply rapidly and apparently stayed in the dam. Carp have been taken in it weighing up to twelve pounds.

There were bass from the mouth of the stream up to Foust's Dam. For some reason we never could take any bass above the head of this dam, although I often have tried. My explanation is that here the water began to chill. Tributary to the stream above this point were half a dozen "native" trout streams which we fished and we heard rumors of trout being taken in the upper waters, above the forks, which are at the present town of Vintondale. Both the north and south branches of Blacklick Creek are now stocked with trout by the state. This is above the abandoned town of Wehrum where the washer was. There isn't a living thing in the stream below the outlet of this washer.

We knew little of the art of fishing in the early days. It was all done with cane poles. Minnows were the accepted bait for bass. Neither crabs or grasshoppers worked very well. A helgramite was sure fire when we could find one, but we didn't know anything about how to catch them. A cricket, if you could keep it on the hook, always produced a fish. But minnows were the thing and everybody who used them caught bass.

At first reels were unknown. We used cane poles about ten feet in length and because there were fish too large to be "horsed" out we have to devise some means to "let 'em run." When a big one struck we "ran" him by the following method. A lot of line was wound around the tip of the pole. When the line started the pole was pointed at it and the line unwound. When we thought he had enough we simply raised the tip of the pole and snubbed the line.

(Please turn Page)



The Fish Commission's patrol boat, after overhauling, about to be launched in Conneaut Lake.



Then reels began to appear from somewhere. We tied these to the pole with fishing line and used ring guides. Not long afterward solid wood jointed poles began to drift into the country. I suppose they were made of lancewood. From the weight I think some must have been of hickory. The ferules were merely brass tubes nailed onto the wood. I think I had the first split bamboo rod on the stream but cannot remember the date. Everyone said it never would land a fish and were duly amazed when it did.

It was our custom to pick out a "hole", set our rods or poles and wait. Usually the wait wasn't long. But we kids had too much energy to just sit. We were always prowling around. When a bass struck, out he went and the "Zing" of the reel warned us to get down there and catch him. We lost lots of fish, of course, but there were always others. It never occurred to us that bass could be taken in the riffles and fast runs.

Then one day a fisherman came over from Ligonier to visit some relatives in Armagh where I always stayed the summers with my grandfather. He persuaded two of us to go fishing with him and carry the minnow bucket. Instead of hunting up a nice hole and setting his rod he started fishing minnows in the riffles and fast runs around rocks. And he took bass, lots of them. We looked at each other and our eyes popped out. Could this be true? Next day we got a bucket of minnows and came down to try it. The most noted fishing for bass in this section—I mean the most publicised—was in Loyalhanna Creek, between Latrobe and Ligonier. There was a railroad along this stream and it was "outside". I know anglers came there to fish from as far away as Pittsburgh because it could be reached easily by train. There should be records of early fishing in this Loyalhanna in the old files of the Ligonier paper. It was noted and much talked about, although I never thought it so good as in Blacklick Creek.

Now in view of all this don't you think bass must have been native to these streams long before they were stocked first in the Delaware? It does not seem possible that from the time of that stocking to when my recollection begins that so many bass could

have spawned and grown here. Especially as any stocking, if stocking there was, must have been several years after 1863. These streams were all tributaries of the Ohio and you say bass were native to it.

I've written this all out in detail merely to give you a picture of early bass fishing, as I knew it. And if possible to add to the knowledge of Pennsylvania bass. I understand you were one of these "east of the mountain" boys and in those days you never could have crossed into our country. My friend, Joe Whitehead has just told me that his father often told him there were no bass in the Frankstown Branch of the Juniata at Williamsburg in his boyhood days. Yet my Dad had always fished for bass.

This Blacklick was a beautiful, fast, rocky stream with large rocks in the center of the stream bed. This, of course, made deep runs and pools about the rocks—places the bass loved to hide.

After my college days began a crowd of us camped every summer at Foust's Mill at Dilltown. We were all bass fishermen and spent most of our time fishing. The last camp was the summer of 1902 and much to our surprise we caught no bass. We had heard stories of the big coal washer being built above at Wehrum. They were building the railroad down the stream from Vintondale to Blacklick and we loafed away our time at a cut just below camp.

We complained to the foreman on the cut that we could no longer catch any bass and he said when he came up that evening he would find out for us if there were any fish. He brought a stick of dynamite and put half of it in above the breast of the dam and half in the pool below. This was highly illegal, of course, but not even a minnow was turned up. We quit fishing.

Later we learned the washer had begun to operate. The stream was not yet discolored but by winter it was yellow and every vestige of life destroyed. There is now a heavy coating of sulphur over the entire stream bed. The tragedy of it is that after all life was destroyed it was found that the coal could not be washed economically and the washer was dismantled. Thus passed the best fishing stream I shall ever know.

## BELIEVES FORAGE STOCKING VITAL

With what our State Fish Commission considers one of the heaviest bass stocking programs ever undertaken in Pennsylvania, comes one of the problems that usually follow the disturbance of the balance of nature. Bass have been stocked but evidently our bass waters need more food in order to keep them in strong, healthy condition to withstand the wintering conditions comments C. L. Peters in his fine column "Outdoors" in the Lykens Standard.

Forage fish are bred under adverse conditions and with droughts killing many in addition to the great numbers taken by the fishermen to be used as bait, there is always a serious shortage.

It will become necessary for the Fish Commission to institute forage fish hatcheries and place more restrictions on the use of live bait, in the near future.

Surveys of all our bass waters will become necessary at regular intervals to determine the amount of available food for the number of fish stocked, and it may become necessary to bar the taking of bait-fish from certain areas of our streams.

This work costs considerable money and every fisherman can help the condition considerably by being sportsmen enough to help conserve baitfish.

Clayton Bechtel, of Loyalton, scored the limit of bass on Sherman's Creek twice this year without the use of any form of live bait. A wet fly and spinner was responsible for these catches.

John P. Hoffman has scored several nice catches from the Juniata river. He also is a fly and spinner enthusiast, and by the way John has a special pattern of fly, all his own and it does produce strikes. He doesn't keep it a secret either.

The last week of July a little experiment was conducted with the use of flies for bass and the outcome was very gratifying. "Jake" Phillips, president of the Tri-Co. Fish and Game Association and Charles Uhler, vice-president, consented to use various forms of live bait, while Clayton Bechtel, Clayton Vogel and the writer, used plugs and flies, in order to determine which form of fishing actually produced the most fish. The experiment was conducted in excellent bass water in Pine Creek, Lycoming county. At the end of the days fishing we were convinced that the lowly worm and shiner produced plenty of strikes from undersized bass, many of which were badly hooked and would have died had they not cut off the hook and permitted nature to remove it from the fish's mouth.

With the use of streamer flies we caught more and larger bass and of the eighteen bass hooked and released, only one was badly hooked. We are quite sure that by fishing artificial lures many bass can be saved and the natural food left in the streams where it is extremely needed. I would like to suggest that a more comprehensive study of the forage fish situation be made and dealt with as our Fish Commission deems necessary.

"Did you ever get your diamond back from that peach you were stuck on?"

"No; she's the cling-stone variety y'know."



Dr. R. F. Fleck of Mahanoy City exhibits a varied catch he scored this season in Stillwater Lake, Monroe county. The catch consisted of a 4½ pound largemouth bass, an 18 inch pickerel and a 15 inch bullhead catfish.



## MONROE COUNTY WARDEN DIES

Stricken at the steering wheel of his car while on his way to the Fish Wardens' Training School near Bellefonte on September 5, Harry P. Custard, Monroe County Fish Warden, accompanied by Warden Joel Young, was driving through Allentown. The Monroe county warden, highly popular with sportsmen in Pike and Monroe counties, was 60 years old.

Mr. Custard has been, since the organization of the Monroe-Pike Sportsmen's association, a director of that body. He was known as an expert hunter and fisherman and since boyhood was head of a hunting club which had its cabin on East Spring Run, Pike county.

His appointment as a fish warden assigned to Monroe county came in 1934, and shortly thereafter he discontinued his garage business, started at Eagle Valley Corner, East Stroudsburg, in 1921. Prior to that, for several years, he was employed by the Burnett garage, East Stroudsburg, to which he moved after spending years as a mechanic at garages in Brooklyn, and as an employe of the Shredded Wheat Co., Niagara Falls.

Twice married he leaves four children: Wallace of Athol, Mass.; Verna, a student nurse at the University of Pennsylvania hospital, Philadelphia; Helen, Honolulu, Hawaii; Arthur, of New Jersey; a sister, Mrs. Harry Colby, Millbury, Mass.; and a brother, Frank, Center Valley, N. Y.

The condolences of the Fish Commission and its personnel are extended to his bereaved family.

## WALL-EYED PIKE AND PICKEREL FISHING

(Continued from Page 15)

have developed nausea. She was so sick of fish that she hoped never to eat another one again, as long as she lived, and in a way I couldn't blame her, for I was pretty well "fed up" on them myself. We fished Ontario that year until late fall when the nights got too cold for camping, and we existed mainly on wall-eyes, since these fish never develop worms, as do bass, perch and great northern pike.

### Pickerel

These fish are found in both lakes and streams, usually around weed patches, and in coves where pond lilies abound. In such favorite lurking places they lie motionless,



Fish Wardens Anthony Lech and Harry Carl display big trout killed in Roaring Creek, Columbia county, when spraying material from Pinegrove Farms seeped into the stream. A fine of one hundred dollars was assessed against the owner for the pollution. The largest brown trout killed measured 21½ inches in length.

and half-hidden, yet all the while alert and watchful, ready to rush out and grab any small fish that may venture near.

Their favorite food is minnows, and this is still the most reliable bait among some of the old timers. These minnows are fished in two different ways, either alive, or else mounted on a wire equipped with a double hook, and one or two swivels to facilitate the spinning motion. Fishing a spinning minnow is an art, and some of the old timers had it down to perfection. The wire, made in the form of a twisted loop, is inserted in the mouth of the minnow and brought out at the vent, where the double hook is attached. It is then cast out on the water and retrieved in a series of short jerks, which in some localities is known as skittering.

When a pickerel seizes a minnow, it makes a short run, then it stops to mull over the bait. At the start of the second run, the hook should be set in the fish—never before.

The best bait I have ever found for pickerel is a double bladed spinner attached to a feathered treble hook. Red, white and guinea feathers make an excellent combination, and they should not be cut off square behind the hook should be set in the fish—never before. back, more in the nature of a bucktail. Don't be afraid of getting it too ragged, for this seems to add to its effectiveness. Pickerel go crazy over this lure, and when it fails to produce, you may as well pack up and go home. I fished a spinning minnow for many years, before I discovered the superiority of this lure; now I use nothing else. Pickerel will follow it right up to your feet, and I have seen them rush out and lunge at it, as often as six times before being hooked. On the Montreal, and Madawapika rivers in Northern Ontario, I have taken northern pike weighing up to 15 pounds on the fly rod equipped with this same rig, no larger than that shown in the sketch.

The size indicated is about right for the fly rod, but it can also be used in bait casting, by attaching to it a snap swivel weight. These gadgets are very handy and conveni-

ent. With their use, one can quickly interchange fly rod lures over to the casting rod, thereby enabling one to cover more territory.

Another popular pickerel bait is pork rind, used with twin spinners. Wobbling spoons are also good, especially the red and white variety. Towards fall, when the weather grows chilly, pickerel seek the deeper water, and at this time of the year plugs will often prove best. On Lake Wallenpaupack, the old red and white favorite, weighted with a sinker, is a popular pattern.

When hooked, pickerel do not put up much of a fight. They seem to grow more sluggish with age, and have a habit of twisting and rolling as they are being brought to net. This applies in particular to fish in lakes and ponds.

Some years they are very plentiful, then again may occur a time when the stream is seemingly played out. I have often wondered as to the cause of this mysterious disappearance and whether they are susceptible to some disease. The Middle Creek, one of the best pickerel streams in the state, has for the past few years been in this condition; very few fish are taken and, considering how plentiful they formerly were, it is difficult to believe that heavy fishing is the cause. Has any reader experienced the same situation and found a solution

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Smith—"But, dear, I am late for dinner because I have had my nose to the grindstone all day."

Mrs. Smith—"Well, you had better get a grindstone that doesn't leave face powder, rouge, and lipstick all over you."

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"What made you beat up that guy?"

"He insulted my girl."

"Why all he said was that she danced like a zephyr."

"I thought he said heifer."



## BASS ON RAMPAGE

The black bass of our inland waters are making trouble again. Out West the other day a tired business man restfully angling for sunnies in a quarry pool discovered that a nine-pound smallmouth was running off with his line, and the poor chap was obliged to haul out the monster and have it photographed. That's only one of many bass atrocities reported since the season opened. Evidently the bass this year are as truculent and predatory as ever.

When the Summer sun has warmed the water of pond or lake or stream, the bass leave their home in the deeps and go on the warpath in the shallows against their encircling enemies. On ledges and sands and under lily pads they lurk to waylay passing schools of innocent infant pickerel and horned pout and minnows. To the carefree cricket that strays from its native heath into their spawning bed or living room they deal swift destruction. Toward the shy, retiring crawfish and the guileless, defenseless angleworm they show no mercy. Their animosity extends even to hand-painted effigies of all such inferior races, including the rubber mouse and the wooden squid or plug.

But let a victim of their rapacity happen to conceal a barbed hook on its person, and they resent it with every fiber of their being. They leave for distant parts in high dudgeon. They scuttle for the bottom and sulk under snags and rocks. Bristling with rage, they go in for aviation and fling themselves at the sky till one yearns for a shotgun to subdue them.

Yet the bass, for all their reputed ferocity, are inconstant and inconsistent, and thereby the work of chastening them, in which thousands of men and boys nobly engage at this time of year, is made difficult. Faced with a strong force of water-whippers bent on establishing justice in the depths and restoring the balance of nature a bit, these submarine outlaws may suddenly become, to all appearances, lovers of peace.

Flip a plump and tender helgrammite down among them and they lift indulgent



Mrs. William Burke of Shenandoah with a catch of two fine smallmouth bass taken in Lake Wallenpaupack.

brows and simply let it wriggle. Try to decoy them into battle by showing them a far-flung frog or the juiciest grasshopper of the veldt, captured and pressed into service after a breathless stern chase, and they ignore the temptation calmly, or, still worse, they look it over and turn away pityingly.

Many a punitive expedition returns to port with the settled conviction that the bass tribe has at last developed a social conscience and renounced war forever. But no, on the morrow, when the coast is clear, the black horde

will be running amuck again and strafing its weaker neighbors with great gusto. Pirates are never pacifists for long.

The task of suppressing the bass puts a lot of people to great inconvenience every Summer. They might be comfortably helping out at the office, or making hay on the farm, or watching the Giants knock the cover off the umpire. They might even be safely and fashionably playing golf. But high duty calls them. They must embark in leaky boats on windy waters and police the various shoals, rapids, island coves and rocky points where the bass are threatening. In a word, they are impelled by that sense or responsibility to their fellow man and the oppressed minorities beneath the waters which has ever distinguished our race from the lower orders.

Sun-blistered and shower-drenched, far from their bridge-playing loved ones and late news of the dictators, the isolationists, the third-term movement and the WPA strikes, they give up week-ends, yes, entire weeks to it. And though they come back hungry and with nothing for the next day's dinner, they have their reward in cloud pictures and sunsets, bird song and pine-tree music, honest appetite and the earned right to a good night's sleep, added to which are their thrilling and indelible memories of the five-pounder that consumed the last crawfish in the pail, jumped over the boat, wrapped the line around the anchor rope and got away.

Thus what for others is vacation time is for the bass fisherman a period of rigorous service to mankind. If the bass ever multiply to a point where they fill our fresh waters and, developing legs, invade dry land and become a menace to traffic, it will not be his fault.

He, for one, has done his duty. When Winter comes and he is again at his desk among all the effete trappings of civilization, the thought of the hardships and dangers he has encountered will be but faintly with him. He will long for the pools and the rigors of battle as sailors for the challenge of the storm, as mountain climbers for the final, nerve-shaking eighth of a mile that bars the way to the achievement of the summit.

He is dedicated to a lifelong passion. The joys of family life, the pursuit of fond ambitions, the theatre and the arts, good books, quiet talk around the fireside with his friends—these will lure him as they do other men. But when the call comes, when the bass are on the warpath, he will excuse himself and rise and go.

—New York Times.

Someone wants to know if it is possible to wash spinach so as to get all the sand out of it. Certainly! Tie it on the end of a fishing rod and hold it for fifteen minutes under Niagara Falls.

It is calculated that the amount of lipstick used annually by American women would paint 40,000 large barns. Good idea! The barns would be more improved by it than the women.

We know a very mean man who talks only politics with his wife. He says that's the only thing he can talk about that doesn't remind her of something she wants.



Exhibit of the Lancaster Fish and Game Association during Wildlife Week at Lancaster this year.



FINDS BULLET IN BASS  
TAKEN ON PLUG

One of the most unusual incidents relative to bass fishing ever reported to the ANGLER occurred recently in Lake Grubb, Lancaster county, writes A. Armand Acri, Editor and Publisher of "The Marietta Times."

While night plugging in a small lake near Lake Grubb, Lancaster county, I caught a fat 15 inch largemouth. When I arrived home with the fish and was about to clean it I discovered a rather ugly looking sore just at the tip of the dorsal fin toward the head of the fish. The sore was small—less than a half-inch across—so I decided to cut it out, in the hope the fish might not be too spoiled to eat. Cutting down almost to the backbone, I came upon the cause of the sore: a 22-calibre bullet, which I am enclosing as proof of my story. The bullet was lodged just above the backbone, more than an inch deep in the flesh, yet the bass was fat and healthy, weighing perhaps a little less than two pounds. The only evident sign of any weakness was that the fish did not put up much of a scrap when hooked. Another interesting fact is that, although it had been out of water nearly an hour when I discovered the bullet wound, the bass quivered from head to tail when touched at the tip of the fin at the point where the pellet had entered. The apparent healthy condition of this fish with a bullet lodged so close to its spine and comparatively near to its head is proof of the remarkable strength and stamina of the largemouth bass. I don't know how long ago this fish was shot but I do believe it would have completely recovered.



This fine catch of yellow perch was scored on a northeastern Pennsylvania lake this year.

There would be more just nations if there were more "just folks."

"Come now, Junior, and take your codliver oil," says the modern mother, "and maybe you will grow up to be a big, strong, bold Dictator and make kings and presidents shake in their shoes."

SHENANGO PICNIC OUTSTANDING  
EVENT

After eating their fill of all the delicious grub that a well planned picnic produces, members of the Shenango Valley Sportsmen's Association enjoyed a fine program of entertainment at their annual summer outing at Community Park in New Wilmington.

Clint White presided as chairman and introduced the guests who included Julius Ahrens, fish warden of Venango county; Charlie Dietrich, of Sharon; Seth E. Myers, of Sharon, secretary of the Northwestern Division of Pennsylvania Sportsmen's Federation and secretary of the Mercer County Council of Sportsmen's; C. H. Buchanan, president of the Northwestern Division of the Pennsylvania Sportsmen's Federation; Andy Colonna, of Sharon; C. B. Gill, of Mercer county; John G. Mock, All Outdoors Editor of the Pittsburgh Press; Tom Elliott, one of New Castle's oldest Sportsmen. W. M. Dick Roberts, Ralph Roberts, of Sharon, chairman of the Mercer county sportsmen; Lee Zedacker, member of the picnic committee; Frank L. Coen, local game warden; Joe Cargill, special fish warden; George Sillman, president of the Lawrence County Sportsmen's Association; Ray Showalter, Chief of Detectives of the local police force; Kenneth Brenneman, superintendent of the Jordan Game Farm.

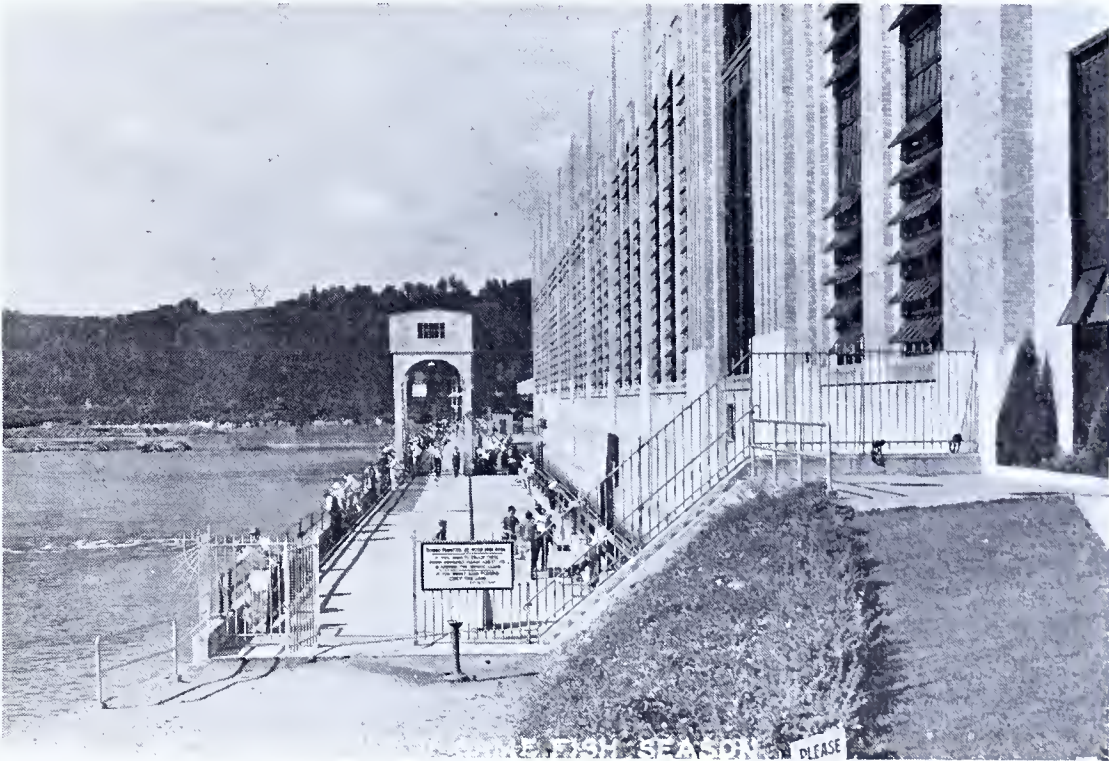
James Sypher, past president of the Lawrence County Sportsmen's Association; William Houk, in charge of the county sports radio program; Corbett Mitcheltree of the picnic committee; Allan Cartwright, president of the Lawrence County Sportsmen's Association; Dave Wheale, past president of the Lawrence County Coon Hunters Association; Victor Connerly, president of the coon hunters; William Evans, Secretary of the county Sportsmen's Association; Charles E. Allen, of The New Castle News, Rev. W. F. Byers, Rev. J. B. Edwards, and Rev. T. Matthew Gillen, all of New Wilmington.

FISH KILLED IN ALLEGHENY

Venango County Fish Warden Julius Ahrens estimated that about 3 tons of fish were killed in the Allegheny River between the plant of the Oil Well Supply Company and the State Street bridge, Oil City, by hydrochloric acid which was accidentally turned into the river by an employe of the plant. The warden and assistants gathered most of the fish which were burned. He warned against eating the fish which were killed by the poison. It was stated that if the river had not been so low, the effect of the acid would not have been so serious to the fish as high water would have absorbed the poison.

The warden announced that a satisfactory agreement had been reached between the Fish Commission and the Oil Well Supply Company whereby the latter will make reparation for the fish killed. The offer was voluntary on the part of the company. Persons who saw the fish were astonished to learn that the river contained so many fine fish.

Of several ways to make a living by the pen, perhaps the surest is to raise pigs in it.



Anglers fishing at Safe Harbor Dam on the lower Susquehanna River on opening day of the bass season.





## HERE <sup>A<sub>N</sub>D</sup> THERE IN ANGLERDOM



For those anglers who are not yet convinced of the thrills to be had in landing a big smallmouth bass on light lure and light casting tackle, we suggest that they talk it over with Cedar Watkins, popular Harrisburg fisherman and brother of Ray Watkins, live wire president of the Harrisburg Hunters' & Anglers' Association. While casting a wobbler weighing half an ounce in the Juniata River on August 19, Cedar almost had the casting rod torn from his hands when a 21¼ inch smallmouth bass struck in an eddy. Twenty-five minutes of playing, with plenty of surface display, followed before Cedar scored the catch, a bass tipping the scales at 4 pounds one ounce.

Bethlehem anglers took their share of big brown trout from Lake Wallenpaupack during the past trout season, reports received from veteran warden Frank Brink of Milford, Pike county, indicate. On the second day of the trout season, Herman Hinz scored with a brown trout 24 inches in length, having a girth of 11 inches and weighing 4½ pounds. Harry Forker caught a brownie 22 inches in length, E. R. Berminger, a 22 inch brown, Pete Koch, a 20 inch brown and Pat Silmife a 20 inch brown.

One of the nicest smallmouth bass reported from the Juniata River in the vicinity of Mount Union, Huntingdon county was that caught by Gerald Lukens, cashier of the Central National Bank of Mount Union. His catch measured 19½ inches in length and tipped the scales at 3 pounds 12 ounces.

They talk so much about the fine bass to be taken in tidewater below the Conowingo Dam on the Lower Susquehanna River that the fact is somewhat neglected relative to the good fishing for panfish furnished by this water. Maurice Kannig, special warden of Harrisburg and member of the Harrisburg Hunters' & Anglers' Association demonstrated recently just what fine sunfish may be caught in that area. He landed seven bluegills that tipped the scales for a combined weight of 56½ ounces, big sunines in any fisherman's language.

Listed with the big brown trout taken during the past season was the catch of Dean Luther of Waterford. Dean's fish measured 25½ inches in length, according to Warden Link Lender, but no weight or girth were given.



Harry Squibb, Jr., of Leidigh's Station, Cumberland county, with three 18 inch trout he landed in the Yellow Breeches Creek during the 1939 season.

Reports received to date indicate that the Upper Allegheny River, with its abundant food supply, has furnished outstanding fishing for smallmouth bass in Pennsylvania this year. Typical of these reports is that concerning a group of Latrobe anglers, Welty Jobe, Oscar Johnson, John Steel and Ted Saxman. They returned from their fishing trip with a catch of 24 smallmouth bass, the largest 17 inches in length. Average length of the catch was 14 inches. Crayfish, of which there are plenty in the river, proved the best bait.

It's plugs from now on for Robert Darling, Oil City youth who caught a nice muskellunge in the Allegheny River at Walnut Bend early in August. Casting plug from rocks on the bank of the stream he hooked the musky, 23 inches in length and weighing 7½ pounds, landing it after a stirring battle.

Ranking with the best wall-eyes taken to date this season was a fine 28 inch fish tipping the scales at six pounds even. This Juniata River wall-eye was caught on September 7 opposite the cinder dump immediately below Lewistown by Howard Thomas of Lewistown. It was taken on a stone catfish.

Plug fishing for bass has been highly productive for Frank Long of Wormleysburg this year. Top catch for the season to date was a 19¾ inch smallmouth bass tipping the scales at 4 pounds 2 ounces. Runnersup to this bass that any fisherman would be proud to have had the honor of landing were two smallmouths, 19¼ inches, weight 3 pounds 10 ounces, and 18 inches, 3 pounds.

From Don Finley, ardent Warren sportsman, comes word that muskellunge, those fighting tigers of the freshwater, are gaining quite a foothold in the Upper Allegheny River, long famous for the excellent smallmouth bass fishing it has produced. Three muskies, he writes, were taken in the river on August 12, one 37½ inches in length, one 38 inches and another 42 inches.

Plugging has been producing some fine wall-eyed pike for the casting fraternity in the central area. Listed with outstanding catches of pike perch during the present season will be that of Bob Mackey of Lemoyne. Bob scored his catch, a 27 inch walleye, in the Susquehanna almost on the outskirts of Harrisburg, toward the West Shore. It tipped the scales at 5 pounds 8 ounces.

The ANGLER regrets deeply that perhaps the record pickerel of the year to be taken in Pennsylvania waters will not go into the record fish file. Dunning's Creek in Bedford county yielded an unusually fine specimen of this native game fish to the angling skill of Emory Orris of Johnstown early in the present season. It measured 30 inches in length but girth measurements and exact weight were not recorded. This was an unusually large stream pickerel, and required 37 minutes to land. At that, the combined efforts of Orris and his angling buddy, Harvey Balt, also of Johnstown, were required before the pickerel was taken. It was caught in Dunning's Creek, near Fishertown, on a minnow.





The end of a stirring battle. S. S. Small of Chambersburg slips his landing net under a 24½ inch, 4½ pound brown trout in Falling Spring Stream, Franklin county. The catch was the largest reported from this stream during the 1939 trout season.



# REGULAR FISH WARDENS

## and their Addresses

**I**N response to numerous requests from sportsmen the ANGLER presents herein a list of all regular fish wardens, their place of residence and telephone numbers. Your co-operation with these field men is vital to the better fishing cause.

NAME	ADDRESS	PHONE
Ahrens, Julius	Star Route #3, Oil City, Pa.	
Aley, Kenneth P.	173 W. Main St., Galeton, Potter County, Pa.	159
Bailey, Ross C.	230 W. Main St., Youngsville, Warren County, Pa.	2-2181
Banning, J. H.	Connellsville, Fayette County, Pa.	946
Bidelspacher, C. A.	401 W. Central Ave., S. Williamsport, Lycoming County	Wmsport. 24561
Briggs, W. E.	Waterford, Erie County, Pa.	76
Brink, Frank	Milford, Pike County, Pa.	108
Carl, Harry R.	RFD #1, Elysburg, Northumberland County, Pa.	Numidia 13-R-3
Christman, R. J.	Kushequa, McKean County, Pa. (assigned to Cameron & Elk Counties)	4648
Cole, Harry Z.	877 Cherry St., Norristown, Montgomery County, Pa.	2335
Cloos, Leland E.	Middlebury Center, Tioga County, Pa.	Middlebury 25-R-11
Cross, George W.	Hammersley Fork, Clinton County, Pa.	Renova 915-R-14
Dahlgren, David	Philipsburg, Centre County, Pa.	339-W
Davis, Dean R.	922 W. Mahoning St., Punxsutawney, Jefferson County, Pa.	540-J
Hahn, Edwin	142 Myrtle St., Erie, Erie County, Pa.	Erie Hatchery
Harter, Keith	Dalton, Pa.	100
Henderson, S. F.	RFD #7, Greensburg, Westmoreland County, Pa.	2684
Iman, Clifton	Evans City, Butler County, Pa.	70-M
James, George H.	65 E. Louthier St., Carlisle, Cumberland County, Pa.	708
Johnson, J. A.	12 Hobson Place, Bradford, McKean County, Pa.	4362
Kirchner, Frank	McConnellsburg, Fulton County, Pa.	40-R-3
Lech, Anthony	48 Front St., Cressona, Schuylkill County, Pa.	Sch. Haven 566
Lender, Lincoln	900 E. 5th & Lock St., Bellwood, Blair County, Pa.	2981
Long, C. V.	East Waterford, Juniata County, Pa.	Blain 55
Mellon, Joseph	5245 Pennway Ave., Philadelphia, Phila. County, Pa.	Delaware 5113
Moore, Harry	331 E. John St., Bedford, Bedford County, Pa.	
Munson, Gerald	Box 325, Linesville, Crawford County, Pa.	Linesville 55
Noll, Leroy	Pleasant Mount, Wayne County, Pa.	
Pyle, Horace A.	362 E. Chestnut St., Coatesville, Chester County, Pa.	392
Sanda, Frank I.	416 S. Second St., Steelton, Dauphin County, Pa.	9-2557
Schadt, J. A., Jr.	Lake Ariel, Wayne County, Pa.	Lake Ariel 109
Shoemaker, M. E.	Laceyville, Wyoming County, Pa.	66
Snyder, A. S.	RFD #1, Mifflinburg, Union County, Pa.	6-220
Wensel, Charles	Clarion, Clarion County, Pa.	91-W
White, Clinton	445 W. Neshannock Ave., New Wilmington, Lawrence County, Pa.	87-M
Womelsdorf, R. J.	241 Pierce St., Kingston, Luzerne County, Pa.	Wilkes-Barre 7-5836
Wounderly, W. E.	615 Eisenbrown St., Reading, Berks County, Pa.	2-7181
Young, C. J.	Sterner's Lane, Fullerton, Lehigh County, Pa.	Allentown 2-8678



# PENNSYLVANIA ANGLER



BROWN TROUT

NOVEMBER, 1939

TEN CENTS



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## EDITORIAL

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### Fall Distribution of Trout

OUR field men have just completed a Statewide stream survey of the trout streams in the State and with few exceptions have reported them in abnormally low condition. This naturally will seriously affect the Fall distribution of trout this year unless we have sufficient rains within the next two or three weeks to bring these streams back to normal.

We are at the present time ready to begin the Fall distribution, but of course, would not sacrifice the wonderful stock of fish which we are holding at our hatcheries and have made arrangements to hold these fish over until next spring unless the much hoped for rainfall arrives. In the event we do not make our regular Fall distribution, our stocking for 1939 will show somewhat of a decrease over last year.

A thorough check-up last week of all our trout hatcheries revealed the fact that we had this year, the greatest production in the entire history of the Fish Commission. Our major hatcheries, Huntsdale in Cumberland County, Reynoldsdale Hatchery in Bedford County, Pleasant Gap and Spring Creek, Centre County and Corry Hatchery, Erie County, are loaded to capacity at the present time with what C. R. Buller, Chief Fish Culturist, states are the finest trout we have ever produced.

Don't pass up an opportunity to visit one of these hatcheries if you possibly can within the next two or three weeks.

Should we not be able to make this year's distribution, it will mean a tremendous stocking next spring. With the aid of our tank trucks in the distribution, it will be possible to take care of all this stocking in the spring.

  
Commissioner of Fisheries



# Some Remarks On The Feeding Behavior of Fishes

By WILLIAM R. WALTON

WHAT experienced angler has not been frequently puzzled and disgusted by the refusal of game fish to be attracted to his lures under conditions which, to him at least, seemed most favorable for the sport?

Explanations in plenty of this vexatious mystery have been offered but none of these is satisfactory from a scientific point of view.

This galaxy of explanations includes about everything one could imagine except perhaps the influence of radio broadcasting which no one seems as yet to have thought of.

One of the amusing superstitions which is quite prevalent among the older inhabitants of some sections of the country is that astrol-ogical influences govern the feeding of fish. That is to say, the seasonal changes in the heavenly constellations as expressed by the signs of the zodiac contain the clue to the proper time for a successful fishing expedition. According to old folk lore each of these signs is supposed to bear a special relationship to some organ or part of the human anatomy as was formerly illustrated on the title pages of patent medicine almanacs.

As my old friend John Fischer, born in the mountains of Bohemia but now of that land where fishing is always good, God rest his soul, used to say: "When de sign iss in de belly, den go feeshing".

But friend John went fishing whenever he felt so inclined, which was quite often and he naively informed me: "I keep mine bait feesh in de bad tub all vinter yet!" Prithee, Brother Piscator, what nobler function hath a bath tub?

Another very old and popular belief and one that has some basis in fact is that the direction of the wind governs to an important extent the biting of the fish. One version of a very ancient rhyme says:

"When the wind's from the north,  
Fisherman, go not forth;  
If the wind's from the east,  
The fish bite the least;  
Blows the wind from the west,  
Then fish bite the best;  
But the wind from the south,  
Blows the bait in his mouth."

From the earliest times the light of the moon, which after all is only the very feebly reflected light of the sun, has been accused of wielding a dire influence over all living things including lovers and fish. Thus the word "lunatic" (no aspersions intended—at least on the fish) is a relic of the comparatively recently held belief that Luna or the moon was responsible for derangement of the mind commonly known, even in the law, as "lunacy". It is then not so remarkable that the most beautiful of celestial objects should be accused of depriving the ardent fisherman of many a tight line and well laden creel.

Of comparatively recent origin is a theory of pseudo-scientific character which has been published to the effect that the vagaries of fish behavior in feeding are due principally if not solely to the effects of variations in atmospheric pressure as indicated by the



"When de sign iss in de belly, den go feeshing"  
was a pet saying of old John Fischer.

barometer. I have discussed this in the October issue of PENNSYLVANIA ANGLER and have little to add to this statement now. This theory in brief alleges that increasing atmospheric pressure transmitted through the water to the swim bladder of the fish, forces the latter to the surface in order "to equalize the pressure of air and water". Being at the surface the fish then just feeds, out of boredom—or something.

What is, however, the most elaborate effort of recent years to establish a touchstone for the universal use of anglers in this respect and one which has been commercialized by its author for some years is known as the "Solunar Tables". (1)

According to its author: "The 24 hours and 50 odd minutes which comprise the "day" (this evidently is the lunar day which is about 50 minutes longer than the solar day) of a fish, are divided into periods of rest and periods of activity. For purposes of these tables such periods of activity are called Solunar periods. The word Solunar—a combination of the words Solar and Lunar—was coined in order to deal with the description of these periods with less confusion. It means—the force resulting from the combined gravitational pull of the sun and the moon; in other words the force that causes the tide in the ocean."

Although the advertisement for this somewhat amazing document says, "Know in advance what time to expect the best fishing on each day of the year", the purchaser will be disappointed to learn upon perusal of the tables that "a shift of the wind to the east will offset completely the effect of the solunar influence and ruin the day's fishing". What wonders have we here, Brother Piscator? The wind cancelling the effect of the

pull of gravitation! Shades of Izaak Newton, where be we a travelling? Further we read "The most important factor which decides the fate of your day's fishing is the trend of the barometer. Fishing and the glass go hand in hand. If the glass is falling, don't blame your choice of flies, your casting, your selection of fishing grounds or any one of the hundred and one things (including your solunar tables) which may affect your day's sport when the barometer is falling." There's nothing like the good old alibi to take the curse off!

Now keep it in mind that it is alleged in the Solunar Tables, that they apply to fishing anywhere both in tidal and non-tidal waters and that they apply to all kinds of fish everywhere in the United States. With this background we will proceed to examine the scientific bases of this most astonishing complication of tide and tables, and lunar schedules.

First: the tides:

It is of course common knowledge derived both from experimental and empirical evidence, that the tides exert a profound effect upon the feeding habits and behavior of fishes inhabiting tide-water and this is especially true of those that inhabit coastal and littoral waters. These effects are due however, not to gravitation as such but to tidal currents and their influence on the movements of the teeming marine life upon which fishes subsist in these waters. If there exists the slightest shred of experimental evidence to show that the pull of gravitation as such exerts the least effect upon even marine fish I have not been able to discover it.

Second: The fish and its surrounding medium—the water:

The world in which a fish "lives and moves and has its being", is one vastly different from ours in some respects. For instance: Should you project your body upward into the air by leaping, it will immediately descend with constant acceleration and should you perchance alight upon some inappropriate portion of your anatomy, you will "go boomp". Not so with the fish. When he darts upward in quiet waters, he will remain suspended at whatever point he may be, at the moment when the energy of the propelling impulse becomes dissipated. In other words, he is immune to the effects of the pull of gravitation. The fish being equal in weight to the volume of water which he displaces is therefore in complete equilibrium with his surrounding medium (the water) and is free to move in any direction in it without being affected by the attraction of gravitation as we know it. It is only when he leaps from the water into the air that he encounters this force and he then falls heavily back into his own element.

In order to obtain a comparable state of equilibrium in the atmosphere, we fill blimps with hydrogen or helium gases and, when equilibrium it attained, the vessel no longer responds in the least to the influence of gravitation but is free to glide in any direction its operator may choose to direct it.



But to return to the fish in the water; through voluntary muscular control of the volume of gas in his swim bladder, the fish can remain suspended and motionless in the water at any time, at any level he ordinarily inhabits, regardless of the moon, the sun or the barometer. The fish is a perfect mechanism in this respect which knows not the attraction of gravitation.

From a consideration of these almost self-evident facts it should be abundantly evident that the so-called Solunar Tables are founded upon a fallacy and that they are useless so far as fresh water fishing is concerned. Although their author claims that they are proven by 11 years of "experimentation" the details of these investigations are not revealed and it is altogether probable that what he calls experimentation is merely experience of himself and other fishermen recorded without consideration of important contributing factors. If we accepted the evidence presented by our senses in lieu of valid scientific experimental evidence we should still believe that the world was flat and that "the sun do move". In such matters as these, empirical evidence, or that derived from experience alone, is likely to be quite misleading.

In spite of a general feeling among anglers that there exists some universal, occult, single force which governs the biting of fishes, if we consider the multitude of factors, chemical, physical and psychological, which may intimately affect fish in this respect such an assumption becomes a matter of extreme improbability if not a mere figment of the imagination.

Fishes inhabiting tide waters are subject not only to the ordinary influences affecting fishes in non-tidal waters but also to the currents caused by the tides, variations in the salinity of the water and to abrupt changes in the temperature of it caused by the flow of the tides. They live therefore under conditions that are not comparable to those prevailing in non-tidal waters.

In view of these facts, the following discussion will be confined entirely to some of the factors that may affect fishes inhabiting non-tidal waters, in order to simplify somewhat a rather involved and technical subject.

The interesting folk lore, rule of thumb and empirical theories which we have been previously discussing, omit from consideration a number of factors which are generally recognized by zoologists and biologists as profoundly influencing the behavior of fresh water fishes. These are as follows:

- First. The variation, daily and periodic, in the content of dissolved oxygen in environmental waters.
- Second: The effects of variation in temperature of such waters both on the metabolism or life processes of the fish as well as their effect on the escape or retention of dissolved oxygen in the waters.
- Third. The amounts of sunlight that fall upon the waters and the effect of this on the water plants in their production of oxygen and carbon dioxide which in turn affect all animal and plant life contained in such waters.
- Fourth: The degree of transparency or turbidity of waters as this affects the growth and abundance of water plants as well as the activities of game fish in such waters.

Last and perhaps least: Atmospheric pressure (altitude) as this affects the escape or retention of oxygen in the water, and as it affects the temperature of the water by increase or decrease of evaporation from its surface.

All of these factors, either directly, or indirectly, exert an influence on the welfare and behavior of the fish, to a greater or less extent, and many of them are complexly inter-related in their resultant effect on the fish.

In order to convey to the reader who may not be acquainted with these things a more adequate idea of the complicated play of these factors, one upon another, there is presented herewith a diagram illustrating the manner in which these physical and chemical factors influence each other. Although this be imperfect and incomplete in some respects, it should serve to convey an appreciation of the many angles which exist in this question of what causes the seemingly mysterious behavior of fishes.

Next in importance to the life-giving sunlight in its effects on fish life, is the presence or absence of adequate amounts of dissolved oxygen in the water. Although the water is a mixture of two parts of hydrogen to one of oxygen ( $H_2O$ ) these gases are so chemically combined that the gills, or respiratory systems, of most fishes cannot absorb directly from it sufficient oxygen to sustain life. This fact requires that there be contained in the water additional quantities of this vital gas as a temporary mechanical mixture and this is termed free, or dissolved oxygen.

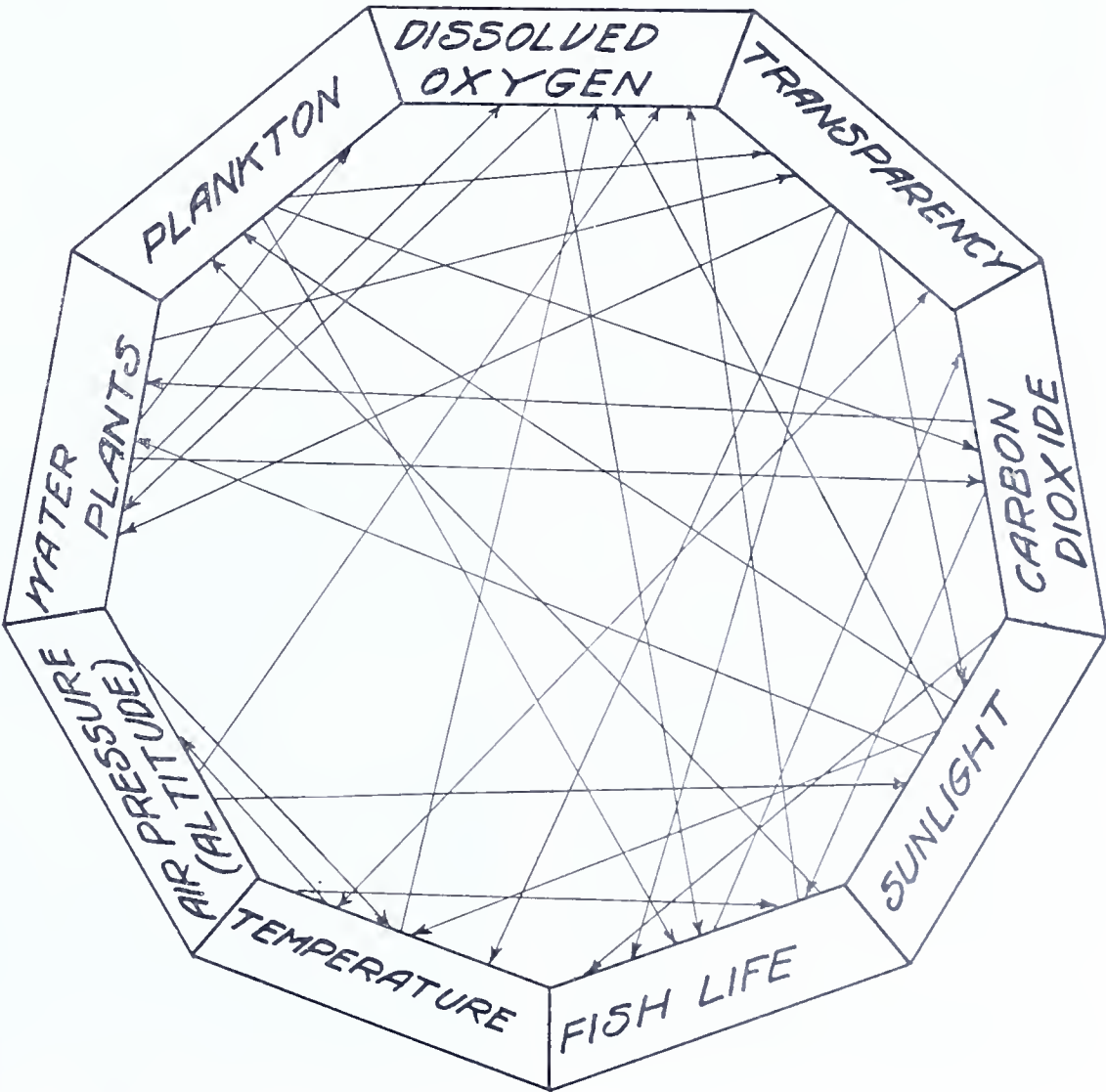
Although submerged water plants produce this free oxygen abundantly while the sun shines, such production ceases at dusk and these plants then begin to set free another gas, namely, carbon dioxide which although necessary to most forms of plant and animal life, will not alone sustain it.

In ponds and lakes and especially large ones, the action of the wind in tossing the surface waters serves well to supply large amounts of free oxygen from the air that is thus imprisoned in the water.

There is no doubt that abundant free oxygen serves importantly to activate and invigorate all fish life as it enables them to oxydize or burn up their food and thus to convert it into flesh and energy.

In a pond of my acquaintance, extending over an area of about 40 acres, that is shallow and therefore quite warm in summer, but which contains abundant submerged vegetation and many largemouth bass, these fish feed actively during daylight hours, when they may be seen rising numerously in all directions. However, these fish do not rise at all and cannot be induced to bite before the sun is well risen. Neither will they take the lure after sunset. I am inclined to explain this behavior as due to the fact that during the day when the many plants are actively producing abundant supplies of oxygen the fish are invigorated by it, and that in the absence of sunlight in this shallow, warm pond, the oxygen supply becomes rapidly depleted and is replaced largely by carbon dioxide, thus causing the fishes to

(Continued on Page 21)





# HUNTSDALE HATCHERY

By C. R. BULLER, Chief Fish Culturist



New hatchery building at Huntsdale.

**T**HE older established State hatcheries were originally located and constructed for the purpose of hatching fish eggs and the planting of the fish at a very early stage of development. Fish Hatchery work, where the crop is planted, or disposed of when very small, requires but very little pond space and a comparatively small water supply. The work is more or less seasonal and the financial investment relatively small, as compared to a Fish Farm, where the crops are grown in the plant until they are sufficiently large to be caught and legally retained by the angler.

It has long been the policy of the Board of Fish Commissioners to centralize production at a few major plants, in preference to creating many small establishments. This facilitates supervision and eliminates much costly equipment. Hence the building of all the fish cultural stations has been along very permanent lines—constructed to last for many years.

The constantly increasing demand, by the anglers, for more fish and larger fish for stocking the public waters, was rapidly placing a burden on the hatcheries far beyond their ability to meet. Due largely to the foresight of those in charge of fisheries work in Pennsylvania when the early hatcheries were established, most of them were located where ample water, of a suitable quality, was available, and when it became necessary to change the program from merely hatching fish eggs, and stocking fry, to the growing of thousands of large fish, most of the plants were economically changed or redesigned to meet this need. But it soon became evident that in order to keep pace with the needs of the public waters for fish, increased facilities in the way of new hatcheries were necessary.

Those in charge of the task of locating likely sites for the construction of a State Hatchery were confronted with numerous problems. The Board was desirous of locating and building a development adaptable for growing of trout, as well as warm water fish species, such as black bass, bream, catfish and others. For the trout work, this required a site where a large dependable flow of spring water of outstanding quality could be had. For the warm water fish development, it required a water supply of high summer temperature and low winter temperature, preferably to be taken from a stream having no possibility of ever being polluted by industrial waste or from other sources.

The topography of the land was to be such that there would be ample fall between the pools, in order to provide aeration of the water for the fish and also to permit economical draining of each separate area.

The character of the soil had to be such that it would permit economical pond construction, and if possible, the location should be in a section having an abundance of suitable water for stocking purposes not already near an established hatchery. This was thought to be an admirable feature as a location in proximity to the water to be stocked greatly reduces fish transportation costs.

Of course, it was realized that few, if any, places were available having all of these favorable characteristics. Many sites were investigated and rejected for various reasons. All of the work of analyzing the water in the selection of likely locations had to be covered with secrecy, as it is a general custom to greatly advance the price of land desired by any public agency. And in order to avoid this, in but a few instances, the investigators,

when studying propositions, did not reveal their purpose to land owner.

In July, 1932, a site having most of the assets, was located on the headwaters of the Yellow Breeches Creek, Penn Township, Cumberland County, near the village of Huntsdale. An option was taken and the purchase made in September, 1932.

The geographic location is very favorable from the standpoint of the fish distribution, as it is near many outstanding trout and bass waters. The soil is of a nature that builds water-tight pond banks.

The fall or drop in elevation from the upper end of the property to the lower section is not as much as is desired but the other favorable factors offset this objection.

The spring water supply, while of a very peculiar nature, is abundant. During the most severe drought period, since the property has been acquired, the combined minimum flow of the spring did not fall below 5,000 gallons per minute.

Irishtown Gap Run, which heads in the mountain south of the village of Huntsdale, flows through the hatchery property, and has sufficient flowage to provide the right kind of water for the warm water fish pond development.

Geographically, the site comprises a most peculiar phenomenon. The top soil, to a depth of four to eight feet, consists of rubble sandstone; underlying this is a strata of limestone. Through the sandstone permeate numerous springs. All of these springs are assumed to be deep seated. Regardless of rain-storms or floods, they never become turbid, being so clear that objects can be seen as plainly in the water, almost, as in the air. The spring consists of six groups, all originating within an area of seven acres.

In most sections of the country, all deep seated springs are inclined to have a uniform water temperature. At Huntsdale where the different groups of springs all bubble forth in such a small area, they vary greatly in this respect. For example, Group No. 1, has a temperature of 57.2 deg. F., Group No. 2, 53.6 deg. F., Group No. 3, 59.0 deg. F., Group No. 4, 59.0 deg. F., Group No. 5, 51.8 deg. F., and Group No. 6, 57.2 deg. F.

It is not uncommon to find springs that at their sources will not support fish life. This is generally caused by a deficiency in oxygen, or a very high content of carbon dioxide. As the water flows from the spring, down the stream over rocks and other objects, it soon absorbs oxygen and liberates carbon dioxide and other gas, making it ideal water for aquatic life.

For various reasons, it is desirable to locate the hatcheries for trout culture at or near the source of water supply. Fish Culturists know the oxygen content of water suitable for this purpose, and are somewhat familiar with the tolerance limit of carbon dioxide, but know little about the other chemical contents of water, as influencing the well-being of trout in hatchery ponds and hatching troughs. The unknown influence of the characteristics of waters probably plays a



big part in the great variance on the holding capacity of different waters for fish. Again some waters can be used many times without any loss in quality, while other supplies can only be passed through one of two ponds before it has lost its value for fish cultural work. While the property was under consideration as a hatchery site many chemical analysis of the water was taken, and the laboratory tests showed it to be suitable for trout culture, with the result that an option was taken on the land, comprising the different groups of springs, and sufficient land, for the construction of a comparatively large fish farm.

While all indications were that the water was suitable, those in charge realized that unknown factors had to be considered, and because of the variations in temperature of the springs, believed that they were confronting a situation different from any other hatchery water that they had ever been privileged to study. It was believed that the only safe way to test the water before spending the sportsmen's money for a property that might not be suitable, was to construct temporary pools and hold fish in them for a number of months, and make careful observation on the results. Such pools were built adjacent to each group of springs, and the first fish brought to the plant on August 23, 1932. The results, as a whole, were very disappointing.

The fish held in the water supplied from Springs Nos. 2 and 5 did very well. Those held in Springs Nos. 1, 3 and 4, had an abnormally high mortality, while those held in the water coming from Spring No. 6 all died within a few weeks.

The first fish were brought from the Pleasant Mount Hatchery, which is supplied with freestone water. It was first thought that the loss may have been due to the extreme change from freestone water to water of the limestone character. In order to check on this, fish were brought from all the different hatcheries and the results were about the same. The water from the springs united before leaving the property, and it was found that the fish did exceptionally



New pond construction at upper end of project, above road.

well in the water, combined from all the springs, at the lower end of the project. It was also learned that the nearer the fish were held to the source of Springs Nos. 1, 3, 4 and 6, the greater the mortality.

In other words, the greater distance the water was permitted to flow, before being used, the better it became. This led those in charge to assume that proper aeration might solve the problem.

Temporary aerators were installed at the source of all the springs. This made a vast improvement, and no further difficulty was had with the fish held in the water after it had passed over the aerating devices, which break the water into fine particles and expose it to the air.

Still, those responsible for the construction of the hatchery were not satisfied as to the suitability of the water, as it is generally known that the chemical contents of spring

water, particularly those found in limestone regions, change from time to time. All the experiments had been conducted during a comparatively dry season.

Heavy rains might change the condition and again make the water undesirable in spite of the work of the aerating devices. Luckily, in the month of January, 1933, weather conditions changed with heavy rain fall and the rapid melting of the snow. The high water period showed no detrimental effect on the fish crop.

From the results of these experiments, it was definitely known that trout could be grown successfully, if the water was given the proper aeration before being used.

Just what gas or gases the aeration of the water is liberating is still not known, and scientists, connected with the Board of Fish Commissioners, are still working to find this unknown factor.

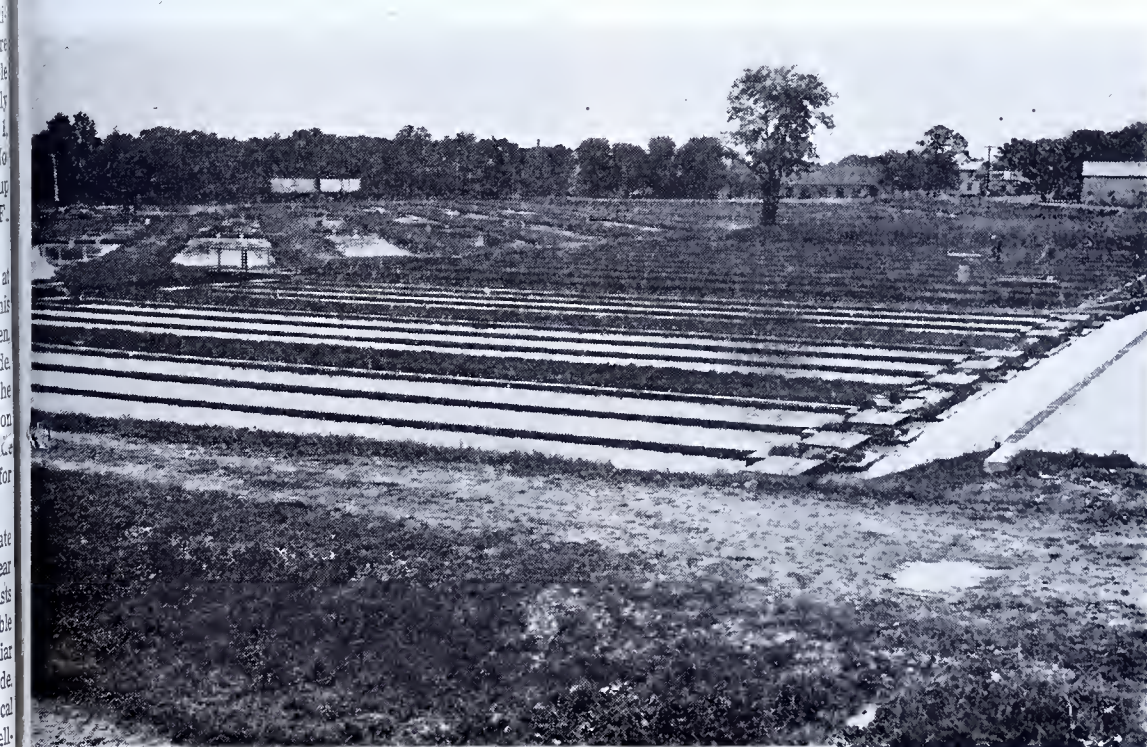
In most instances, the hatchery waters are aerated to increase the dissolved oxygen and decrease the carbon dioxide. Insofar as the waters from the Huntsdale spring are concerned, this is not the case, as the carbon dioxide runs almost uniform, and well below the tolerance limit for fish. The oxygen varies from seventy-eight and one-tenth per cent to sixty-nine and nine-tenths per cent saturation.

Hydrogen Sulphide Gas is found in some spring water, and the lethal dose for brook trout is said to be .86 P.P.M. Naturally, the investigator searched for traces of this gas. None has been found to date, and the presence of Hydrogen Sulphide Gas is usually accompanied by a low oxygen content, while these springs showed no deficiency of oxygen.

While this research work was being conducted, thought was also being given to the suitability of a portion of the water for egg hatching purposes. A fish hatchery that cannot develop and hatch its own eggs is somewhat handicapped.

The springs having a temperature above 52 deg. F., were eliminated, because water,

(Continued on Page 18)



Center view of the Huntsdale fish farm.



# LATE AUTUMN FISHING

## Notes on Fishing for Game Fish during October and November

By ALEX P. SWEIGART



Sharing honors with walleyed pike as a good bet for late fall fishing is the eastern chain pickerel.

WHILE it is generally agreed that September ranks as one of the best months for taking smallmouth and largemouth bass in streams and lakes of Pennsylvania, there can be little doubt that artificial lure fishing for bass during October and November has definite limitations. Fortunately for the die-hard bait caster, however, these later autumn months may be counted upon to furnish some splendid sport with the wall-eyed pike or Susquehanna salmon and the Eastern chain pickerel. The following notes and observations on this tail-end of the season fishing should help to demonstrate, if nothing else, just how much uncertainty and hit-or-miss luck enters into the picture.

In common with a number of light lure bait casters here in the central part of the state, we have come to regard late autumn fishing for smallmouth bass in most of our rock bottom streams as having a mighty big question mark attached. Perhaps if enough facts are gathered together by those who hate to relinquish the feel of the short rod in their quest for the gamest battler of the inland waters, the smallmouth bass, we'll start to figure some answer to taking his lordship on artificials later in the season. The plug fisherman who follows his sport right down to the deadline is in an advantageous position to add his observations on the problem and the ANGLER will appreciate receiving them.

Several factors seem to have direct bearing on the activity of the bass during later autumn. First, we believe, is water temperature. With the coming of cool nights and later one or two heavy frosts, the temperature in most warm water streams plummets downward at an amazing rate. This sudden fluctuation in temperature is certain, we believe, to have a sharp effect in hastening the dormant tendency in smallmouth bass. Time and again, during October, while fishing deeper flats, we have surprised smallmouths lying in water so shallow that their dorsal fins seemed to fringe the surface. Since, on these occasions, sunlight was strong on the

water, we assumed that the fish had sought areas close to the shoreline for the warming effect available. Under these conditions, we have never been able to induce a basking smallmouth to strike at our artificials.

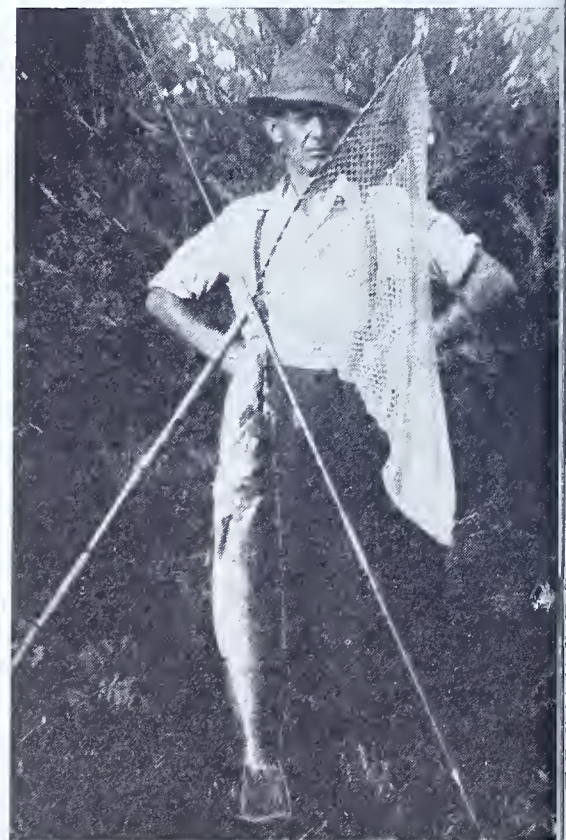
The type of stream in which the smallmouth bass occurs seems a final determining factor as to its activity in later autumn. Tuscarora Creek in Juniata County and Sherman's Creek in Perry County are streams that during the heat of the summer frequently attain a temperature in excess of 85 degrees Fahrenheit. On September 27 this year, Sherman's Creek carried a bottom temperature reading of 62 degrees F. as against a reading made on September 1 of 83 degrees. Plugging on this occasion yielded one strike, that from a 15 inch pickerel which was released. No feeding activity on the part of the bass known to be in the stretch of water fished was observed. Schools of silver shiners were well grouped and in the open water of deeper flats as contrasted to the occasions during the earlier part of the season when these forage fish were scattered in shallow back bays and eddies. Incidentally, in passing, the action of forage fishes serves as a mighty good key for the plug fisherman in forecasting the day's sport. Scattered minnow schools, we have found, have often indicated bass and other game fish on the alert for food, hence in a receptive mood for artificials offered.

In contrast to the extremely sharp fluctuations in temperature in Tuscarora and Sherman's Creek, Penn's Creek in Union County serves as an excellent example. This stream annually yields some fine smallmouth bass, inclined somewhat to slimness but packing plenty of well-conditioned wallop in their strikes. When we say that brown trout and bass occur in the same pools in a certain section of Penn's Creek, some conception of the fairly constant water temperature during the year is to be had. Three years ago, in late October, light lure casting in that section above Glen Iron yielded fine sport with the gamey smallmouth bass and, while no big

fish were taken, those cold water smallmouths proved themselves later autumn fish of the first water. Penn's Creek receives much of its water from mountain and meadow spring fed trout streams, a factor undoubtedly contributing to the activity of its bass until later in autumn.

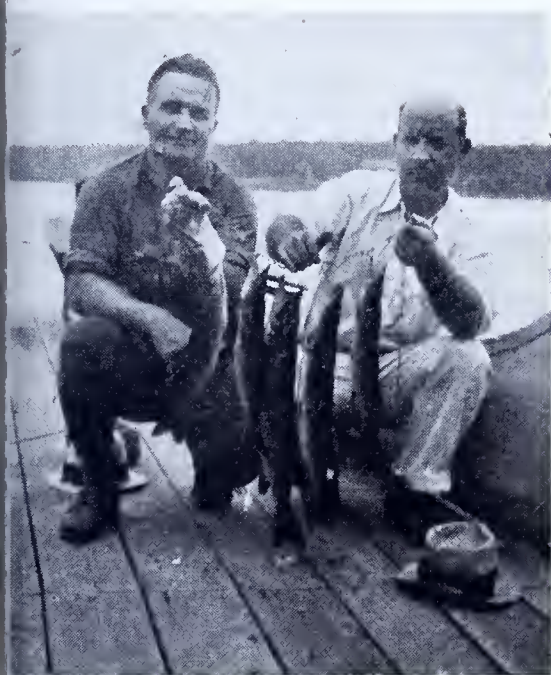
An incident that occurred a number of years ago on the Conodoguinet Creek at a point where Big Spring, a famous central Pennsylvania trout stream, limestone in character, enters has caused us to ponder the possibility of some of our bass not entering into the usual dormant period in the winter. A sucker fisherman, trying his luck on January 1 in a deep pool where the trout stream entered, caught a smallmouth bass. According to Warden George James of Carlisle who reported the unusual catch, this fish was in fine fettle and gave a mighty good account of itself. It is characteristic of Big Spring and other limestone spring fed streams in Cumberland County that water temperature fluctuates but slightly during the entire year. In the higher winter temperature of such water, quite possibly smallmouth bass might not stiffen into dormancy as is the case in streams in which the temperature may drop to the thirties or below during the winter months.

On the chance that water temperature fluctuations do have strong bearing on the striking tendencies of bass during October and November, it might be a good idea to plan plugging trips at the tail-end of the



A good late season bet for walleyed pike is the Upper Delaware River. Here is Durling Whitaker of Bushkill, Pike County, with a 30½ inch, 8½ pound walleye taken in the Delaware this year. It had a girth of 18 inches.





A lake in the Poconos, in the heart of the pickerel country, yielded this great catch of pickerel to Joe Larmer and Cy Campbell of the State Department of Agriculture this year. The fish ranged in length from 19 to 24½ inches and had a total weight of 18¾ pounds. A golden spoon turned the trick.

season with this factor in mind. Offhand, we are inclined to believe that spring-fed streams and lakes will offer better late autumn fishing for smallmouth and largemouth bass.

Prior to entering dormancy, the bass feed heavily, laying up a surplus of fat and tissue upon which to draw during the winter months. There seems to be a definite tendency on the part of the smallmouth bass to seek out deep pools with the coming of the first frost or two, and we have observed little if any surface activity during late October and November. The problem in plugging then seems to center about getting the lure close to bottom and retrieving at an extremely slow pace, as slow in fact as that employed in plugging for wall-eyed pike during the summer months. Even then, it has been our experience that bass strikes were the exception rather than the rule. This is when the sinking type of wobbling plug, such as the Heddon Midget River Runt, appears at an advantage, although the chances are strong that live bait such as the spotted leopard frog and minnow will outscore all types of artificials by a heavy margin. Definitely, in late fall fishing for bass, the live bait fisherman has the advantage.

It has been noted that, as dormancy approaches, the smallmouth bass of our rock bottom streams become increasingly sluggish and even in fishing live bait, the lure must be close to bottom and easily accessible to attract a strike. The stiffening up process is most interesting to observe and when it has progressed to the final phases before dormancy, the chances of strikes from smallmouths are practically nullified, even on live bait.

All of which leads us to the inevitable conclusion that late autumn bass fishing, especially with artificial lures, is strictly a gamble. For the fisherman who doesn't mind hands numbed by cold on chill November days, however, one consolation is offered. Annoying weeds have generally moved out,

permitting him to fish his lures deep, and if the bass are strictly off-strike, he has the consolation of a good chance to tie into pickerel or wall-eyed pike of noble proportions. For that reason, it seems a wise course to follow by choosing waters in which one or both of these species as well as bass occur.

#### Late Autumn Aces

The fighting qualities of chain pickerel and wall-eyed pike have long proved a source of argument among fishermen. Granting that neither has the flashing, hard battling qualities of the smallmouth bass, sizable pickerel and wall-eyes are to be reckoned as most desirable game fish on light tackle, the former through its swiftness in the strike and ensuing battle, the latter because of its sullen, heavy resistance.

Chilling of the water in late season appears to definitely increase the aggressiveness of the pickerel. It will be found generally that these fish have now, in common with the bass, entered deeper pools and pockets. Here again, deep and rather slow retrieving of the casting lure seems to be called for. Many pickerel are also taken on minnows at this time, fished close to bottom in deeper holes and pockets. The old time "pike fishin'" rig used by veteran trollers with their long cane poles has probably in the passing of the years accounted for more pickerel than any other outfit. Basically simple in design, the rig consists of a strong wire about 6 inches in length, attached to the line by a swivel. The small loop at the end of the wire is inserted through the mouth of a good sized chub or shiner and run back through the anal opening of the bait fish. A double hook is then attached through the loop, the hook pulled forward into the body of the fish so that the two barbs lie upward, one on each side of the minnow. The bait fish should be slightly curved on this rig so that, on being drawn through the water, it twirls about through the medium of the swivel. "Plouting with a minnie on a wire" as some old time pickerel

fishermen put it, ranks as a deadly method in taking these fish.

As for artificial lures for late fall use, wobbling and straight running plugs, such as those described in the September issue, as well as spoons, rank high. To this combination, one of the best casting lures we have ever used in taking pickerel should be added. It is the Al Foss pork rind lure, a single hook device with fore propellor. Bottled pork rind, attached to this little lure, the head of which comes in white, red and white, black and white, and green and white finishes, makes it a particularly appealing pickerel bait. Occasionally in fishing it, if too long a strip of pork is used, pickerel will strike short, failing to connect with the hook. Under this condition, reducing the length of the pork rind has been found to work well.

Pickerel taken in November seem to put up a much better scrap than they do during the summer. It is well to remember that their slender jaws are easily torn and, after hooking a good fish, keep a tight line. Our stream pickerel in this section are keen jumpers and a little slack is all they need, during one of these aerial displays, to throw the lure.

The pickerel as well as the wall-eyed pike spawn in early spring and apparently development of the eggs in the female fish with the approach of winter has something to do with making them more aggressive. At least two hunters of our acquaintance carry their casting rods with them during the small game season. They have found that combining gunning and casting makes an ideal sportsman's day afield. Give it a try sometime when you happen to be hunting near good pickerel water.

Considerable space in this publication has been devoted in the past to the sport to be had in taking wall-eyed pike on casting lures. A sinking type of plug that can be worked slowly near bottom (we like the wobbling type for this work) will be found to yield

(Continued on Page 20)



The walleyed pike ranks as a chill water, late autumn ace for the game fisherman.



# GOING FISHING

By ELLA E. SOCHER

**N**EARLY every fishing magazine that we have around here always tells about where the big ones were caught, how the weather was so and so, the water was high or low, and what a big battle there was landing them, etc. But as for me, I think that going or getting ready to fish has a thrill all its own.

At our home there is more excitement getting ready to go than there is catching a big one or even losing the biggest one.

Take last bass season for instance—my Dad and two of my brothers, one twelve years and the other nine decided to leave on Friday evening at five bells (Dad is a volunteer fireman and all his meeting notices state that the meeting is called for eight bells and so that is what he uses instead of o'clock). Monday evening at dinner they start talking it up. By Tuesday evening all their reels get taken apart and there are oil spots on mother's new wallpaper. Lines are stretched from one room to another and we have four rooms and a hall on the first floor. They take the old lines off and use them for some kind of a filler. Then a new line is put on, Donnie holds the spool with a pencil through the center. The old line that they are not going to use should be thrown away, but instead it is hid some place; in one of the buffet drawers or behind a row of books in the bookcase. There is no more room in the tackle boxes what with every kind of a gadget ever shown in a fishing magazine. All their pet fishing articles are dug up from all the dark nooks in the house—the ones that tell what to do when the water is high and clear or maybe the water is muddy and high; or perhaps this noted fisherman had a swell

article about a spinner plug. These articles are reread again so they won't be left in the stream when they are not biting and it is not known what to do to make them strike.

By Wednesday evening everything is high. A list is made out by Dad, Ray and Donnie. Here is one that is a standard for these three fishermen. It rests in state, at present, in the first drawer of the desk.

One gallon jar for gasoline for the gas stove, one tent, umbrella type with a sewed-in floor, also tent poles, stakes and ropes, 3 blankets, one mattress cover to hold ½ bale of straw bought up the river, 3 knives, 3 spoons, 3 forks, 3 cups, one skillet, one butcher knife, one coffee pot, one hatchet, one lantern, 4 towels, cake of soap, and a thermos jug.

Now comes the grub, which is a big item with our fishermen as they tell me the fish may not be biting so they always go prepared anyway. So the "Feed Bag" list is put out for the shopper:

One lb. coffee, one qt. jar sugar, 4 small cans cream, 3 lb. bacon, 2 doz. eggs, one lb. onions, ¼ pk. potatoes cooked with jackets on at home, 2 rings of liver pudding to fry with the potatoes, 2 cans celery soup, 2 cans chicken and noodle soup, 2 cans baked beans, 2 cans beef stew, 2 cans corn beef, 4 loaves bread, one box cracker meal and can Crisco just in case the fish are hitting good, one salt and one pepper shaker, one jar of butter and 3 dozen paper plates, a boon to any camp dish-washer.

Then by Thursday the boys, Donnie and Raymond, go out in the woods with a special box made of wood to get moss; not just any kind, this has to be spergum moss or some-

thing like that. Then it is dig in the garden patch or just inside the edge of mother's flower bed for worms, and, if the spade takes up a bigger clump with some petunias in it they just put it back again with a little dirt around it and hope mother doesn't find out until they are well started on the trip. Then the neighbor's lawn looks inviting and one-half hour after that they are a couple of squares away with about three or four volunteers added.

By this time things are happening in the house also. Dad is down in the cellar. The work bench, the wash bench, and a couple of shelves allotted to fruit jars are filled with paint cans—white, red, black and green enamel paint, a brush in each can. The plugs are all going to be retouched, he says, and hung by the hooks on a line strung across the cellar from corner to corner. Be sure he warns, not to open the windows so no dust blows in to spoil the finish. Oh, yes, plugs if varnished have to be clear varnished, as Mother and I found out to our dismay after we had made a special trip to Pittsburgh to buy some. "Do not go down in the cellar, let everything as it is, you might get snagged on one of these hooks," warns Dad. I wonder where all those plugs and what-nots are going to find a place in the tackle boxes. One plug is especially battered and nicked, the hooks are sharp and we remark why not discard that dirty looking one? "You have others that look much better than that one." "Why I caught a sixteen inch bass and missed a couple of them on that one. The memories alone on that one give it a place in my tackle box." So we say no more and leave Dad in the basement.

My two brothers are back by this time and ask Mother may they stay up late to catch night crawlers with Dad. "How late?" asks Mother. Dad yells up from the cellar "Eleven-thirty. Mr. Walzer told me he would sprinkle his lawn good to bring out the crawlers."

"Oh, no! Up until eleven-thirty Thursday night and going away fishing Friday night! You boys go to bed and get a good rest," says Mother.

But someone has to hold the light for Dad and the box for the crawlers must be carried so off they go for the night.

Mother says there is enough in the tackle boxes to catch fish without staying up all night to catch worms. I think those plugs catch more fishermen than they do fish (just between you and me.) But the boys claim that rock bass and big hornie chubs like nothing better than a nice juicy night crawler, Ugh! Back home again at twelve-thirty and then there is a sandwich and stomping around the house. They must look at the crawlers under the kitchen light, which is the brightest. Mother calls down the stairs, "Do not forget to wash your hands before you fellows eat anything. Anyway you should not eat before going to bed. Just take a glass of milk."

"O. K.", they answer, but Dad already has sandwiches made for all three and so they



View from the camp, Upper Allegheny River, Tidioute District.





Donald and Raymond. Sure they caught fish—rock bass and chubs.

eat them chuckling at the joke on mother. They troop off to bed. Dad is just about played out and the boys are too excited to go to sleep so they have to be threatened with no fishing trip before they settle down to sleep.

Dad leaves for work early Friday morning, the boys are ready to come down stairs, but Mother makes them stay in their room until she can get herself in the right mood for what is coming. This is not an ordinary trip but the first fishing trip of the year! Downstairs they come, all ready for business. Dad has left a big sheet of paper with the orders all written down. After breakfast which is a hurry-up affair even though they are not leaving until five o'clock in the afternoon, they begin. The first article on the list is tent. They get the tent. Put a check after the tent and so on all down along the line to the last item on the list. They start to put the things in the hall, then in the living room, and by the time the last item is checked and double-checked, Mother and I have a little aisle to walk from one room to another and we wonder how in the world Dad is going to get it all stored on the gasoline horse as he calls the machine, and if he does get it packed where are they going to have room to sit in it. The boys' overalls, sneakers, shirts, bathing trunks are all packed in an old barracks bag. They override Mother's suggestion that they take pajamas by insisting that the other kids up there that go

fishing do not wear them "so why us? A coverall suit is better, you don't have to get dressed in the morning?"

Dad comes home at four o'clock, he has the machine all gassed and oiled up. By this time the boys have started to take out the things that get tied on or squeezed in between the fenders and the hood. Raymond puts the luggage carrier on the running board and immediately the wading boots, water jug, lantern, bag with the tent pegs and ropes are stored here. The food is put inside a fifty pound lard can bought at the grocery store for ten cents. There is also a luggage carrier fitted up on the back bumper; it gets its share of the load. Blankets are folded up on the back seat to sit on. The pillow slips (laundry bags which will be filled with straw) are put with the mattress cover. The 1929 flivver is finally packed. I am sorry that I did not take a picture of it packed. Mother says it always reminds her of a rag man that used to come around Pittsburgh with his bulging wagon pulled by a skinny old horse.

Dad and the boys are in seventh heaven. Dinner is ready and they sit down to eat. Their usually hearty appetites seem to desert them and the boys merely pick at their food. Mother coaxes them to eat; she thinks they should have at least one good meal to help tide them over until they come back Sunday night. But nobody can eat so Mother packs a box of sandwiches and fruit to eat on the road. Dad keeps glancing at the clock, wanting to get away as soon as possible. He is afraid someone may have appropriated their favorite camping spot. An ideal spot—right handy to the pump that the man put in for his campers, lots of nice shade trees, and a swell pool right near the tent. Dad keeps mumbling to himself "four hours to get there, one-half hour to put up the tent and get everything in shape; maybe I can squeeze in a little fishing just to see how the fish are biting."

Now comes the big moment—they are ready to start. Mother and I get two or more kisses as they feel like giving the world away. Dad walks around the car two times, shakes the car front and back, gets in the driver's seat to make sure he can get a clear view in the rear-view mirror. He gets out again, yells up the steps—"If so and so calls

or comes tell him or them we are going to camp at the same place, and if they want to come up to bring some blankets and we will fix a place in the lean to." But the "company" usually sleep in their car and eat at the table as an umbrella tent will only sleep four adults if one starts at the door and crawls to his sleeping place. Dad says they do that lots of times.

Raymond asks Dad, "Hadn't we better get the jack and the changing tools from under the back seat?" Dad's hat just about raises up three inches—what if they had a flat out on the road and had to unpack about one-half of the camping equipment alongside of the road to get at the jack and other equipment needed to change a tube? That happened on one trip of Dad's. That taken care of they are ready to start again with lots of good-byes to the neighbors thrown in.

To get to Route 8 which is one of the routes they use going up to the Allegheny River where they fish, after leaving the house they travel up one block, down left one block and left again one block. They are gone not more than five minutes when Mother and I hear loud thumps on the porch. "What's wrong?" we ask. "Oh, I forgot to put the worms in the car. I thought it would be best to leave them in the shade under the back porch. They weren't in plain sight and I guess that's why I forgot them." It was Dad's voice. But what did Dad say to the boys? "You fellows are some fishermen! Going fishing and forgetting the bait." But personally I've heard of other fishermen doing the same thing!

Dad always calls the first trip the "Boys' Fishing Trip." When he takes them on a fishing trip he always stays near them as the current is swift away up the river and he is satisfied to give them two full days of just fishing and swimming. There is one camping trip, then two other trips up the river when they stay at a farm house. Before bass season, it is fishing at Butler Dam for blue gills, and perch and a few sunnies. When the boys have had their three trips Dad goes fishing with the men.

On Sunday evening they come home, sunburned, tired and hungry. "Oh, Boy! Did we

(Continued on Page 19)



Ready to go back home.



# PICKEREL PLEASURE

By CLAYTON L. PETERS

It appears that no other game fish is held in less esteem by our Pennsylvania anglers than the pickerel. Usually after hearing barber shop and tackle store discussions concerning this fish commonly called every name imaginable from grass pike to snake eye we are apt to think of him as a pretty low fellow. However, we find that there are those who have learned to appreciate *Esox Reticulatis* as a good game fighting fish and excelled for food by few of our fresh water fishes.

The very streamlined appearance of the pickerel is suggestive of speed and action, and when they are in a feeding mood their strike is savage and swift. During a recent discussion by a group of fishermen I heard the statement that pickerel are just plain dumb, will strike at anything tossed to them and are too easily caught. I knew immediately that the inventor of these remarks had not spent much time fishing for or studying the habits of pickerel.

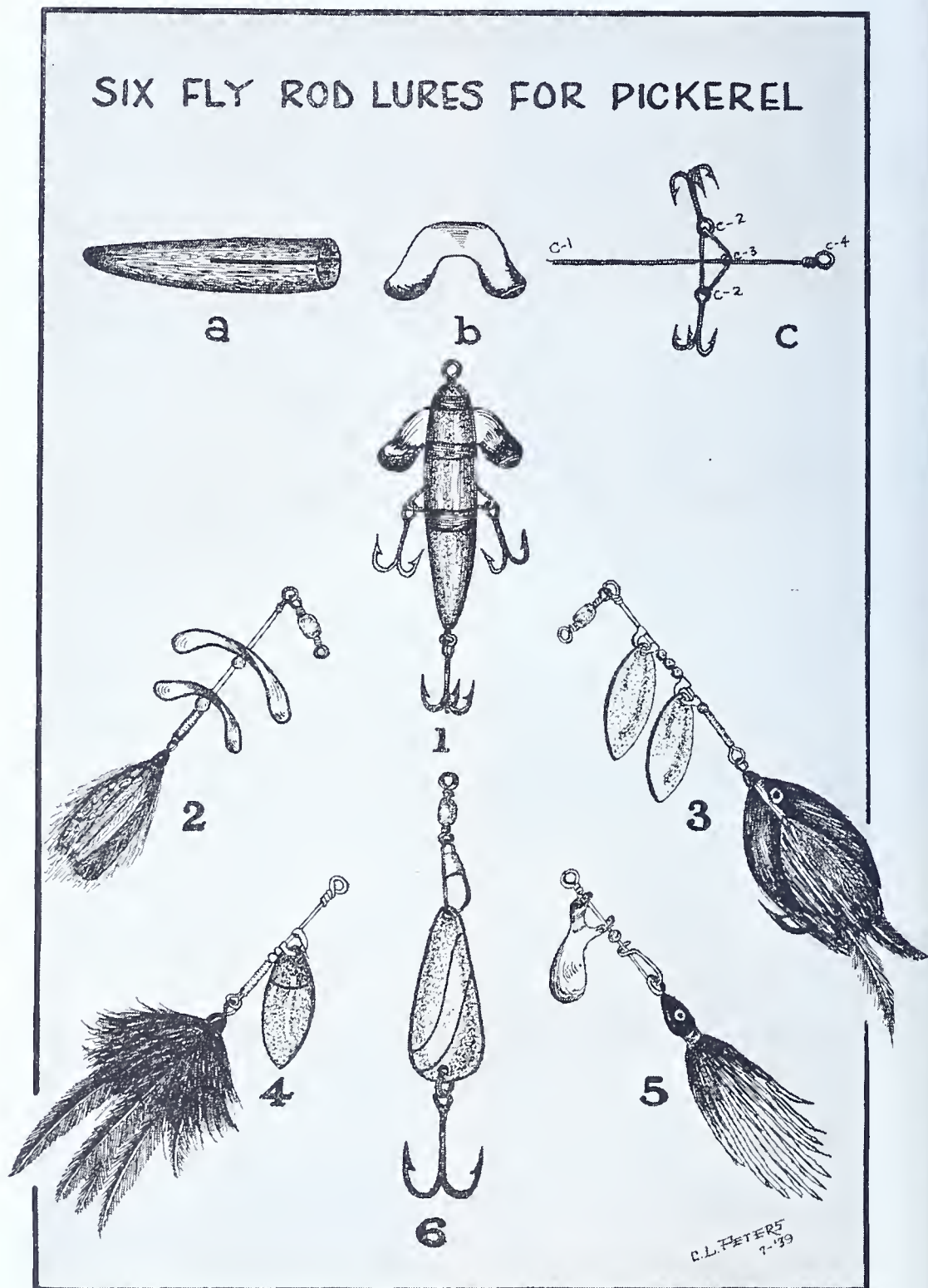
*Esox* is a moody fellow and does often go on a feeding orgy, but apparently lies for days without taking food or even showing interest in the choicest offerings. During these periods of inactivity the streams seem absolutely devoid of this specie. Very often when this occurs the smaller fish can be taken but the big fellows refuse to strike.

Several seasons ago we took several large pickerel from the Ellendale Forge Dam in Stony Creek, Dauphin County. These fish were not always to be found lying in the shallows waiting for a chance to grab our plugs, as some fellows would have you believe. Pickerel will change their feeding tactics more than either the bass or trout. At times they will lurk in submerged brush, weeds, or among sunken logs, and again they will cruise over open flats in search of minnows. The largest fish we took from the dam was caught in deep open water, and I am sure that those who criticise the pickerel as a game fish would have changed their mind had they witnessed the scrap that fellow staged before being brought to net. He leaped clear of the water, shaking his head like a furious tiger, but the tiny lure held. He tried to tangle the line in the lily pads but to no avail, and when finally brought back into the open water evaded the net on several attempts before being finally subdued. True enough we have caught pickerel that refused to fight, but one of 18 or 20 inches usually gives a pretty good account of his prowess as a fighter.

While the casting rod and plug is a deadly device for these fish, much more sport is to be had by the use of the fly rod and small plugs or streamer flies.

The tension of a fly rod with the weight of a good sized pickerel to bring out the rod action is far more exciting than could possibly be achieved by the use of the short stiff casting rod.

Small plugs have been used successfully with the fly rod during recent years and in the accompanying illustration, Figure 1, I have pictured one of the deadliest fly rod plugs I have ever found for pickerel. I have



seen this little plug bring success when nothing else in our tackle box would bring results. This plug or quill minnow as we call it can be easily made by the average angler. The body of the plug as illustrated at "A" is made from a large goose quill. A section of quill is cut to measure about 2½ inches in length. This is thoroughly cleansed and a slot cut lengthwise half the length of the entire body. This is to accommodate the fin "B" and the hook rigging as illustrated at "C". In making the hook rigging start at point c-1 and c-3 so that the wire extends ½-inch through the end of the quill. At c-3 the wire is bent to a 45° angle forming the triangle for the hook support. The base of this triangle must be long enough to protrude

on each side of the quill when the assembly is put into place.

When bending this triangle the hooks preferably size 10 must be slid into place and the wire crossed and secured by a turn or two at point c-3 and finally extended to point c-4, where the ring is formed at the head. Slide the hook assembly into the quill with the end c-1 extending through the rear of the quill. Now attach the rear hook and draw the wire up tight into the quill. Before inserting the fin tamp tin foil and chipped lead into the body with a small stick, packing it as firmly as possible. Colored foil will add to the appearance. Slip the fin into place and add more foil. Wrappings of silk thread

(Continued on Page 22)





A great war leaves the country with three armies—an army of cripples, an army of mourners, and an army of thieves.—German Proverb.

Signs forbidding wading and swimming in Kiwanis Lake have been erected there by the board of health.



# THE FALL FISH

By Special Warden Karl D. Rhoads

**F**ISHING in early spring with dry and wet flies for fall-fish in my estimation affords fishing that compares to trout or bass fishing.

*Scotilus caporalis*, commonly called fall-fish, which is the largest of our Pennsylvania minnow family is not receiving the credit it rightly deserves as a game fish and its never ending desire to rise for flies. This species has been known to attain a length of twenty (20) inches, but usually runs from twelve (12) to fifteen (15) inches and with 15 inches of silvery fighting fish on the end of a 3½-ounce nine (9) foot bamboo rod, you have plenty of sport.

Fall-fish are usually found in swift water and in eddies, but I find they also harbor in deep holes and along shady banks especially on a sultry summer day. Here you will see them rising for bugs and flies.

I find that the following patterns tied on a number fourteen (14) hook, fished dry, bring the best results: The grey hackle, brown hackle, and exceptionally good, a grey hackle with a yellow body and red tail (one of my own patterns). I usually fish the Manatawny Creek between Pine Forge and Pottstown, and find here they will strike a grey fly more consistently than any other pattern. On the other hand while fishing the French Creek they will take brown or white flies in preference to the grey. My theory is that the forage and the environment of the streams differ to cause this conventional upset.

I always use a dry fly tied on a number fourteen (14) hook and if the silver *caporalis* will not rise (which is seldom) I resort to a 1/0 spinner and a number ten (10) wet fly using the same pattern as the dry flies, the brown hackle, grey hackle and the grey and yellow hackle.

To my knowledge the fall-fish is one of the first fish that will take a fly in early spring. I have caught them on a spinner and wet fly as early as March and they strike exceptionally hard at this time of the year. I remember last year, according to my fishing diary, on March 4, 1938, I had a most severe case of fishing fever and with our back door only a block away from the creek I yearned to try some of the many new pattern flies which I had tied during the long winter evenings. I went up to the attic and got my nine (9) foot five (5) ounce bamboo rod which I use for plugs, spinners and wet flies and went down to the creek. Using a "D" line I tied on a six (6) foot leader and attached a 1/0 spinner and a new type grey fly which had to be christened. I made several casts without any success. The water was plenty cold and the air uncomfortably chilly. Suddenly there was a strike. I set the hook and the line cut water. I knew from the tactics it was a fall-fish, because they usually start upstream when hooked and I have seen them break water when taken on light tackle but I suppose the water was too cold for any aerial activities. When I finally landed the fish it proved to be a fall-fish about eleven (11) inches long. I caught seven (7) that afternoon ranging from ten (10) to fourteen (14) inches.

During the spawning season the male fish is highly colored, its head, fins and underside are a bright orange. They are very active during this period. They collect hundreds of small pebbles and work them on a heap where they are going to spawn. These heaps are from 2½ to 3 feet in diameter and eight (8) to ten (10) inches high, shaped like a cone. I think these fish should be protected at this time of the year to perpetuate the sport as long as possible. I also feel that there should be a size limit set on these fall-fish of at least ten (10) inches.

The fall-fish was practically extinct a few years ago but it is staging an excellent comeback and widely gaining popularity with the fly fisherman. We should be sportsmen enough to release the small ones so that we can enjoy this sport in future years.

As the weather becomes warmer the fall-fish take the dry fly more readily and for this fishing I use a three and one-half (3½) ounce split bamboo nine (9) foot rod, fitted with an H.C.H. double tapered line and I use a nine (9) foot leader.

During July and August the fall-fish in this section of the stream feed on a small green larva which falls from the trees and floats on the surface. When the fall-fish are feeding in these larva they very seldom strike any other pattern fly so I wrapped some green silk on a fourteen (14) hook and used just enough grey hackle to keep it afloat and it worked. I caught several nice fish on this bug during a larva hatch.

The fall-fish travels in schools having from eight (8) to twenty (20) fish in a school. I find it advisable when fishing a school of these wary fins to be very quiet because they will be feeding and you can see the rings appear on the surface but if you accidentally slip on a rock or make any disturbance in the water they will be gone. If you come upon a school of these fish remember to approach within casting distance as quietly as possible and then wait until they resume feeding and the rings on the surface reappear. Then go to town and fish as hard as you would in your pet trout stream. I am sure you will have as much sport as you could hope to have.

Personally I can say the fall-fish has given me many hours of enjoyable sport and I know he can do the same for you if you give him an even break.



This fine catch of fallfish was made by Paul Reddig of Ephrata, Lancaster County.

## DROUGHT REDUCED DELAWARE STREAMS

Down this way, Delaware County, the creeks are the lowest that I have ever seen them, wrote Robert E. Gambol of Media, during the summer. The bottom is covered with a green growth, algae, I believe, even up to and sometimes including the riffles. To date we have not caught many bass, only two small ones, about 10 inches in length, which were released.

Made a checkup on catches on opening day of the bass season, the results of which follow: Springton dam, 5 bass, all over 17 inches, 3 of these being taken on plugs. Crum Creek dam, none, (honest to goodness, not one) fish was taken and no strikes were had on live bait. Bromwall's Lake, none. Ridley Creek and Darby Creek were muddy. Octoraro Creek, very few bass taken. Saw one smallmouth about 17 inches in length.

Why no fish? I know it was during the full of the moon but cannot understand the lack of strikes at Crum Creek. I live at the top of the hill and get down there at least once a day to try to checkup on catches. As a general rule you can stand on the bridge and see bass swimming around, along with the carp but very few fish were seen during the past three weeks by anyone. Have not seen many carp working around nor did I see them spawning as they did last year. We had no rain down here from the latter part of June to the last of July.

Trout fishing was rather poor here on the opening day and for two or three days thereafter due to the fact that it was so cold. Most of the fish caught were taken from deep holes as apparently none were to be found in the riffles.

White Clay Creek furnished some good fish between bridges 55 and 57, mostly brown trout. Some darn nice rainbows were taken from the Octoraro Creek above Pine Grove.

Before trout season opened, plenty of suckers were taken, and I caught two very large fall-fish. The first was 13½ inches long and weighed 14 ounces, and the second was 14¾ inches in length and weighed one pound 3 ounces. They were in fine condition and I thought when I first hooked them that they were bass as they were taken in Crum Creek.

### THE WORD TO THE LIVING

It isn't enough to say in our hearts  
That we like a man for his ways.  
It isn't enough that we fill our minds  
With paeans of silent praise.  
Nor is it enough that we honor a man,  
As our confidence upward mounts—  
It's going right up to the man himself  
And telling him so, that counts.

If a man does a work you really admire,  
Don't leave a kind word unsaid  
In fear that to do so might make him vain,  
And cause him to "lose his head."  
But reach out your hand and tell him,  
"Well Done!"

And see how his gratitude swells.  
It isn't the flowers we strew on the grave,  
It's the word to the living that tells.

—Anon.



# TOWARD THE CONSERVATION OF OUR STREAMS AND WATERS

By Darlington R. Kulp

President, Pennsylvania Division, Izaak Walton League of America.

THESE are a great many people who believe that all that is necessary to correct a wrong or right an improper condition is to enact legislation dealing with the problem. The fallacy of such logic can readily be observed in the irrefutable fact that from time immemorial we have had laws, social and economic as well as moral—if we must make these distinctions—that have condemned anti-social forms of conduct, and provided penalties to punish those who may have disregarded them.

It is time that we should be governed by the truth, that laws in themselves are impotent. The Ten Commandments did not eliminate stealing, killing, adultery and perjury,—else the problems of crime would have been solved long ago. On our statute books, we have many laws purporting to make men free and equal but we all know that these rights cannot be conferred by high sounding phrases, even though they be uttered by the gods themselves. Laws in themselves are impotent, we repeat for the sake of emphasis. At the best they can do little more than give us a sense of direction and define the boundaries within which we are permitted to act without being penalized. Strictly speaking, there is no such thing as a good law or a bad law in that morality depends upon activity. In that laws can only function by the inertia that men give to them, their goodness or badness depends upon the intellectual and moral character of the man

that applies them. When laws are unpopular, or if people are indifferent to their application, they are worse than useless in that they only too frequently block methods of procedure which would in reality accomplish desired objectives.

It is not my intention to condemn the new Pure Stream Law of Pennsylvania though it may be inadequate in many details. It is at least a step in the right direction. Nor do I want to as much as suggest that we should not have Federal legislation pertaining to the welfare of our waters. I want to emphasize the fact that legislation is not enough. Pure streams on our statute books is one thing while pure streams in our fields and mountains is quite another. The man who made the remark that the new Pure Streams Law of Pennsylvania has left *absolutely* protected the remaining 15,000 miles of our clean streams is to be commended for his optimism and enthusiasm but criticised for his lack of insight and accuracy of expression. This is not the observation of one who has looked at the problem of pollution from the vantage ground of experience in the field, but rather that of the arm chair and the cloister. We haven't any factual evidence to show that our streams are any cleaner or more secure from pollution today than they were before June 22, 1937. This is not the fault of the Act, for as I stated before, laws are impotent in themselves, but due to our unwillingness to do the tasks that are expected of us. With this in mind, I venture to submit the following plan of action for the conservation of our streams and waters. It is not new and it is not academic. It has, in part at least, been tried and produced commendable results.

We must recognize that to conserve a stream is to do something more than keep it free from pollution. This means that we must apply the principles of conservation in conserving our waters as well as our other natural resources. Conservation is positive and purposeful. Its problem is one of efficient development and wise utilization, and the conservation of our streams depends upon our ability to develop to the fullest capacity the potential powers of a stream or body of water as it is related to its specific purpose, so as to provide the greatest possible good for the greatest number of people. The conservation of our streams differs primarily from the conservation of our other natural resources in that their utilization is determined largely by their location, and by predetermined conditions over which human control is extremely limited. Just as soon as we talk about conservation, the question comes up, "Conservation for what?" It is just at this point that we are apt to take a narrow minded attitude of the problem before us, and make blunders that are costly and destructive of our purpose. We proceed to determine its use from our own individual desires rather than from the point of view of the stream, if you will permit this personification. Waters may be used for many purposes, but individual streams and bodies



His first musky. Wally Walters, 8 years old, of Sewickley, proudly displays a 34 inch muskellunge weighing 9¾ pounds and taken in Edinboro Lake, Erie County. The musky struck a spoon for Wally while his father handled the oars on the boat. The lad played the fish nearly to a finish and his dad then took over and ended the battle.

of water are very limited in their functions. I have an excellent example of this in mind which will illustrate what I mean. Not so many miles from my home there is a stream which is nothing more than a flood stream. Early in the spring, trout will find their way into its channels, but when the snows have gone and the flood waters have been carried away, the trout naturally disappear because of the topography of the land through which the channel of the stream runs. There were some enthusiastic but misinformed sportsmen who thought that this could be made a trout stream. Much money was spent on the project which could have been thrown down a sewer to a better advantage. Originally it was an ideal stream for trout fishing, but the inroads of civilization, i. e., creating of farm lands, removal of forests, construction of modern highways, etc., have completely altered the environment of the stream, to the extent that its use has changed completely. It still serves a purpose, but its purpose is determined by its environment, and in this case it is a flood stream and nothing more.

It must also be recognized that the utilization of our stream for one purpose may limit or even destroy its use for other purposes which in themselves may be legitimate and wholesome. We do not want bathers splashing about in the reservoirs that supply us with drinking water, even though controlled fishing may be engaged in without any harm whatsoever. We do not want our city watersheds turned into bungalow communities, though they may be used for hunting and fishing to the mutual advantage of all parties concerned. We have no objection

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This big watersnake was caught in Grassy Pond, Luzerne County, on a live minnow while stillfishing, according to G. V. Roulin.



# WHY NOT A "FLIVVER" FLY ROD OUTFIT?

By E. L. KING

IS worm and minnow fishing a sporting way to take trout? Is the speckled Prince Charming of Pennsylvania's game fishes always taken in a manner as befits an aristocrat of the finny kingdom?

In presenting this article, the writer wishes to stress the point, doubly emphasize it if you will, that the opinions are not intended as a criticism of any angler's method of taking fish.

This article is intended solely as a contrast between two widely diverging forms of angling as viewed in retrospect after many years on the streams.

The confirmed worm and minnow addict will doubtless insist the use of live bait is just as sporting as the flyman's method; others less set in their way and just a bit dubious may sometimes wistfully wish for a flyman's outfit and an instructor to take a fling at this thing called fly fishing.

In most instances, the dyed-in-the-wool bait fisherman has never employed flies; or if he did so, usually he did not continue long enough to become proficient. The angler, who once masters the comparatively easy intricacies of fly casting, seldom, if ever, returns to bait.

The exclusive flyman, and his number is increasing daily, frequently may be just a bit disdainful concerning the sporting angle of worm and minnow fishing; likely doubly so of the latter. Ordinarily he is rather a tolerant good-natured fellow and not out endeavoring to pick a quarrel with others not sharing his opinion. His views are best emphasized by a growing refusal to employ bait under any and all conditions—regardless of creel content—and ever increasing alarm over forage conditions.

Now just what does the term sporting imply anyway?

Does the term sporting mean merely self-indulgence and amusement or does it indicate giving the fish a fair chance also? Does it mean pitting one's wits against the natural instinct of self-preservation on the part of the fish, or does it imply filling the creel in the handiest manner possible?

If sporting is to be construed as merely amusing the genus homo, then any old sort of fishing procedure should suffice, merely so long as it pleases the participant.

But gigging, netting, shooting fish is hardly considered sporting, yet these methods probably amused the persons with a predilection thereto in bygone years.

If sporting means giving the fish a fair break, an even chance—say for example, as given to our professional fighters in the squared circle, our race horses on the big time tracks, our baseball teams with unbiased umpires, then we are beginning to get on rather thin ice.

In worm fishing as practiced by most fishermen, the trout has little or no chance of surviving the ordeal once hooked, and *that regardless of size*. The very nature of the practice, the proficient, professional, successful manner, is to let the fish have the bait long enough to swallow it, then "turn on the heat".

At the first rough jerk of the angler's rod, a steel barbed hook, frequently a No. 6, is driven right plumb through the victim's vitals.

Ponder a moment. An excited anxious 175 pound man, armed with rod and line, pitting himself against an 8 or 12 inch trout, and the latter's vital organs being rasped and slewed to shreds with a biting barbed cutting sliver of steel, razor sharp.

Ordinarily in bait fishing the poor trout has just about as much chance as a barefoot

urchin, suffering with a severe attack of green apple tummyache, would have if thrust into a prize ring to do battle with a heavy-weight champion of the world. Likely the sick boy would have the better chance—the champ would refuse to hit. But few fishermen refuse to yank.

On the other hand, there is no denying that Old Mother Nature has been lavish in recuperative gifts to her children, and sans the human element a cruelly hooked trout still has a chance to live—sometimes—if properly handled. Unfortunately the biggest hurdle is the white man's tendency toward careless destruction, mostly thoughtlessly and unintentional it is true.

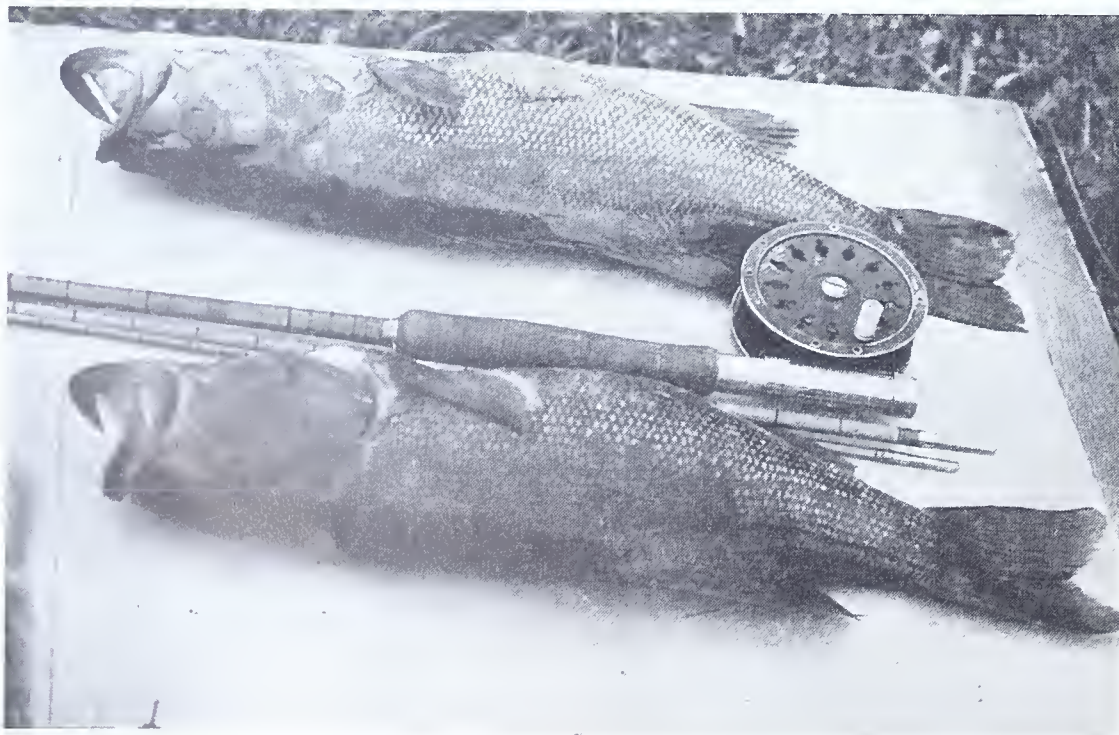
How often do we see helpless undersize fish lifted bodily from the water and dangled in mid-air, twisting, squirming, kicking life away on the hook, so that bystanders may view the victim. Then with the hook imbedded still deeper by the struggle, the victim is grasped in dry hands and the barbed sliver torn from the quivering flesh. The fish is then given an underhand sling back into the stream, only to slip away and die.

Fishermen should NOT be permitted to visit streams unless properly equipped to release fish. The fish code should be amended to provide stiff penalties even to the revocation of license to such anglers as are not equipped, ON THE PERSON, with scissors or a cutting tool to snip gut or pliers to clip hooks. IT GOES WITHOUT SAYING ANGLERS NOT PROPERLY EQUIPPED CAN NOT AND DO NOT SAFELY RELEASE FISH, HOWEVER GOOD THEIR INTENT MAY BE IN THAT RESPECT.

Lamentable in the extreme, the technique of bait fishing gives the angler little opportunity to enjoy the thrill of a running, fighting fish. With the sickened fish hooked so cruelly there is little or no chance to escape, the ultimate is a foregone conclusion. Landing nets are unnecessary. In many instances fish up to 12 inches in length are heaved high up into the air and far back on the bank with one mighty yank. Ridiculous it is true, but one can actually witness this drama re-enacted time after time on many smaller trout streams, especially during the first few weeks of the season.

Anglers indulging in such practices are not exactly to be censured or condemned—rather a lot of sincere sympathy is rightfully their due. These brothers of the fraternity are wasting their heritage and not tasting the full measure of the holiday on the stream, and the God-given privilege of fishing—simply fishing. They are not experiencing the thrill of a fly placed just right. Lost too is that sense of satisfied artistry derived in outwitting a wily old rainbow, brookie or brown with a fluffy bit of tasteless, useless feather or hair; unknown to them is the whippy snap of the dancing bamboo and that never-to-be forgotten spine tingling anxiety as to whether or not the 3, 4 or 5-X tippet will hold.

Another vitally important and distressing condition especially associated with the use of bait is the alarming forage situation in both bass and trout waters.



The flyrod accounted for these two fine North Branch of the Susquehanna smallmouth bass during the present season, according to Myron W. Shoemaker, Warden at Laceyville. They weighed 3 and 3½ pounds respectively.





A No. 14 Blue Quill fly lured this 18 inch brown trout to the strike for Henry DuBroux of DuBois. It was taken in Kettle Creek in July.

Millions upon millions of minnows are still destroyed yearly in pursuit of bass, and the constantly increasing use of bait fish on trout streams is only adding fuel to the flame. Then, too, some anglers thoughtlessly insist upon digging for worms on the banks of streams. Such action can only anger the farmer and distress the conservationist; it means erosion to the farmer and silt on spawning and feeding beds to the latter, either condition almost certain to destroy fish life.

Each minnow destroyed likely robs a bass or trout of a meal. The practice can not continue many moons longer—uncurbed. One can not expect to go into the stream and rob the fish of his food—and then return to catch him too. Likely we are sure to kill him some way or other—it is time to choose whether we would rather starve him to death, have him fall victim to predatory hunters in his weakness or frantic overtime search for food or catch him ourselves.

Now let us examine the flyman's method. First, he does not rob any fish of food, nor does he disturb stream bottoms or banks in quest of bait.

The constant action necessary in fly casting offers a keen sense of exhilaration in itself. There is a lot of fun even when fish are not taken, no tiresome waiting, no feeling of futile doing nothing. The skill and precision of a well placed fly may be likened to the thrill of the expert shot on the golf course or dexterity with the cue on the billiard table. And one never knows but what the next case, the next swirl, the next sunken log may bring that life-long quest, the all-time big one.

Now let us examine the flyman further. His light tackle does not permit the "horsing" of fish—even tho a fish should infrequently be hard hooked, the lightness of the leader dictates careful handling, handling not likely to gouge, rip and rake tender tissues, handling not likely to cause any permanent injury should the victim be fortunate enough to break away or be released on account of

moderation in size or the good sportsmanship of the victor in the joust.

And the flyman seldom hooks a fish hard. Many of the hooks are almost microscopic in themselves. Most of the trout are hooked lightly, sometimes only on an infinitesimal shred thinner than the tiny hook itself. The hook is never in the stomach, never in the gills, and only once in a blue moon so deep as the tongue. Mostly only the extreme lips and the corners of the mouth are involved.

With the proper equipment, a 10-cent hook extractor, a small fish may be readily released, quite frequently without removing the victim from the water. With limitations the same holds true for a larger fish, and each year more and more fly pursuits are releasing larger and larger fish, fishing for the fun only and not for the table.

Pennsylvania needs more flymen. The time has come when some practical method should be considered with a view of encouraging present bait fishermen to switch to artificials.

Merely telling anglers fly fishing is more sporting or more fun will not suffice. Fly fishing is like golf; it grows on you. Once you get to the point where a prize-winning rainbow, brown or brookie are spurned unless taken on a fly, then the angler is getting somewhere. He'll not rob any more bass or trout of shiner dinners; he'll not rake some poor harmless 6-inch baby from tail to gill with a No. 6 worm laden steel razor.

The problem is hardly one to be entirely solved by legislative action, at least not at the present. Rather it is a process of education and pride. The converts should be recruited from the ranks of middle aged and younger fishermen, and especially the kids who are coming along each year to follow us.

What fisherman has not seen a youngster's pleading eyes, sometimes so eloquent as to almost speak, gazing at the oldster's flashing bamboo rod and gaudy flies. That kid should be our convert and conservationist, our guardian of future good fishing, and he'd learn fly casting in a jiffy, but all too often with a breaking heart he turns to worms. Worms, worms, he hates 'em. Many adults are beyond converting, but the kid isn't, merely make an outfit available at a price not beyond his reach or the pocketbook of some doting grandparent.

One of the proudest moments of my fishing life occurred on Newville's Big Spring last season. Standing hip-deep in water, fishing dry flies upstream, was my little nine-year-old daughter. Working downstream, using wets, came a kindly old fellow, eyes twinkling as he asked: "What are you fishing, little girl? Flies?" With a scornful tilt of her snooty little nose, proud as only a nine-year-old can be, the kiddie replies: "I never use no dang worms! I USE flies!"

And that's not all the story—only nine, and when a little fourth grade girl can raise trout with dries, a grown man should not fear to try the same.

Many fellows willing to give fly casting a fling are scared off on account of big stories with regard to the cost of equipment. Maybe organized fishermen can do something about that. The "flivver" made America gasoline conscious. Now everyone has a car or two. It should be a lot easier to put a fly rod in every fisherman's hand.

Perhaps it would not be too difficult a task for sportsmen's clubs to make America

fly rod conscious. Perhaps what we need is a "flivver" fly outfit, a good practical low-cost beginner's assembly, balanced and complete, ready to fish even down to the leader. Let the skeptic start out in moderation without too great an investment—let him learn the thrills he has been missing without too many pocketbook pangs.

Let us get the fellow started if we can. He'll start with his low-cost outfit, but we all know where it will end. Just like the rest of us, his mind will be rambling about among the snappiest thing in rods in a year or so; he'll have the latest new-fangled reel, and he'll talk like a veteran, for hours on end, about tapered lines, long tapers, short tapers, torpedo heads, etc.

Approach the lad with the bait can at his side in the right manner, and likely he'll be a rabid dry fly purist in a year or two, probably cleaning up local casting tournaments where he was only a wistful spectator before. And his poor ever-suffering wife will hear that wild exulting boast: "I get 'em with flies or not at all", and will wonder exceedingly at the vagaries of the masculine intellect, especially a fly fishing masculine intellect.

The proposition should not be so hard. Organized sportsmen have licked harder assignments. First reputable manufacturers and jobbers might be encouraged to assemble a practical, balanced, low-cost beginner's outfit to be sold in one unit at the most reasonable possible price. The assembly should be approved and endorsed by organized fishing clubs, and then local tackle dealers sold on the idea of stocking the outfit. Farseeing local outfitters and dealers should greet the plan enthusiastically; likewise the manufacturers. Think what a couple hundred thousand more fly fishermen would mean in future business. (Please turn Page)



A fine catch of smallmouth bass scored on the fly-rod. The writer's daughter, who handles the flyrod with skill, displays the catch.



The fish, the fisherman, the manufacturer, the retailer, all should benefit exceedingly.

And say what you will, from any angle, fly fishing is more sporting, more humane. It offers more action, greater expectancy, bigger thrills and is a decidedly pleasant pastime regardless of whether fish are hitting or not. There is no hunting for bait; the angler is ready to go into action at a moment's notice, anywhere, anytime. And contrary to general opinion, the cost is decidedly moderate.

By putting aside 25c a week for one year, a neophyte at present can accumulate a sum sufficient to buy an outfit that will prove efficient, pleasant to use and catch a lot of fish. By degrees and at will, he may then replace it with more expensive and delicately balanced equipment likely to last year after year.

### FROM LEHIGH ANGLER

Dear Editor:

"All of your stories are from successful fishermen; well, here is from one that is not. Although an embryo sportsman my methods have been considerably improved and yet the actual results since last spring have been relatively poorer than ever before. I believe others have experienced such results also. One thing that could help our fishing game along in the eyes of fishermen like myself would be the large scale introduction of bream and perch. The small pygmy sunnies seem to be all over by the thousands".

A Pennsylvania Angler booster,  
Richard Bogert.

### SUCCESS OF TIOGA OUTING SENSATIONAL

During the past summer, the Tioga County Consolidated Sportsmen held their first Outing and Field Day at Bradley Wales Park on the West Side of Pine Creek Gorge. We think the park deserves space in this article for a brief description. It is located on the west rim road about one-half way between Blackwell and Ansonia or about 12 miles from each place. The Park served as a farm home for many years for the family of Bradley Wales. During the lumbering days the old switchback from Tiadaghton to Leeton ran directly through the farm. It is high above and just back of Tiadaghton, the Eastern edge being on the rim of the Canyon and furnishing a wonderful lookout. The farm was purchased two or three years ago by W. L. Bailey of Wellsboro and is used as a summer camp and hunting camp. Mr. Bailey, an enthusiastic sportsman, gave the county organization the use of the park for their outing. As there are several hundred acres of level and rolling ground, mostly cleared, it is an ideal spot for this type of outing. At the winter meeting of the Sportsmen, held in Wellsboro, the idea of an outing was brought up and later committees were appointed to carry out the idea. The Tioga county organization is only three years old and had only a vague idea of what to do. A chairman was appointed for each individual event, this man to work up his own event and appoint his own help.

The day of the outing came in clear and bright. Warm? Yes, but the park is high

in the mountains and you can always get a breeze. The crowd began to arrive early. By 11:30 the various sports events were going full blast. The Running Deer, Small Bore Rifle, Fly Casting and Horseshoe pitching were open all day. At 2:00 P. M. those present witnessed a fast soft ball game between Westfield and an All Star team picked from the Crooked, Marsh Creek League. The Westfield boys proved too fast for the All Stars defeating them 12 to 6.

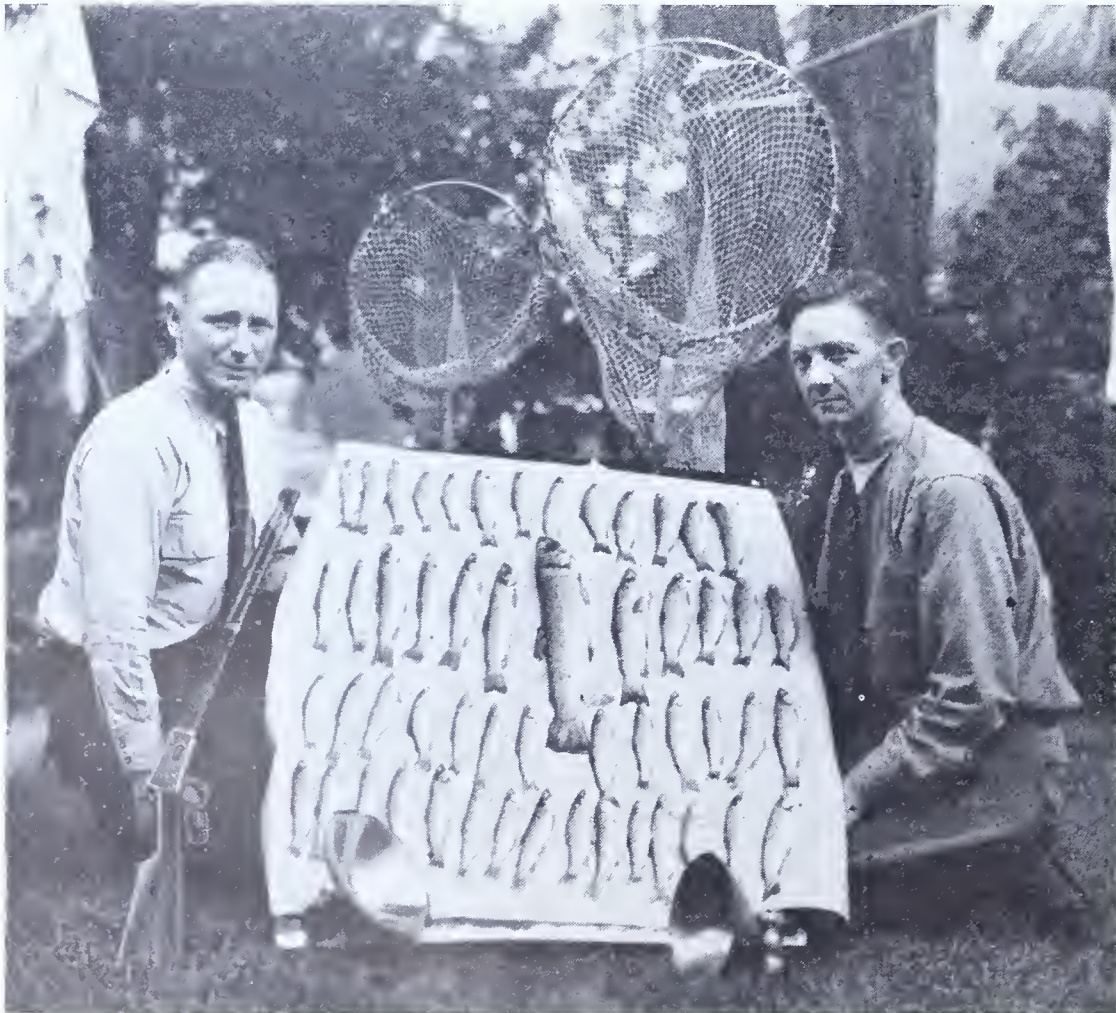
Following the ball game Fox chase was next in order. Six dogs were entered in this event. The dogs were auctioned off for first, second and third place and the chase took place, on the opposite side of a deep gulley from the crowd so that all present were able to watch the dogs over the entire course. Fourteen dogs were entered in the Coon chase which was over nearly the same course. By the time the Coon chase was over the sun was creeping down toward the western horizon and there were still 98 gate prizes to be awarded. The first of these was a \$10.00 check donated by the Elkland Leather Company, Elkland, Penna. The other prizes, ranging from flash lights to oil, gasoline, groceries and what have you, ended up with a six week old pig, donated by Joe and Harry Davis, Little Marsh, Penna. Merchants from every town in the county took part in the donation of the various prizes.

The prizes for the sports events were carried away as follows: High total points all events went to George W. Cross, Hammersley Fork. Running Deer first prize, Mr. Outman; second place tie between K. Monks and L. Johnson. Small bore rifle, Fred Dunham, Wellsboro; fly casting, first, J. Harvey, Hammersley Fork; second, T. E. Evans, Mansfield. Horseshoe pitching, first, Harry H. Root, Wellsboro; second, Elmer Smith, Mansfield. Fox chase, first dog, J. L. Kernan, Hornell, New York; second dog, L. E. Cloos, Middlebury Center; third dog, Clyde McEvan, Blossburg. Coon chase, first dog, Foster Mase, Liberty; second dog, J. L. Kernan, Hornell, New York; third dog, J. B. Ross, State Game Supervisor, Williamsport, Penna.

The committee in charge met later in Wellsboro and at that time it was found that over 2,000 people had attended the outing.

The committee in charge were Herbert Flook, chairman, President Mansfield Sportsmen's Association; W. S. Stafford, President, Morris Rod and Gun Club; Robert Wilson, President, Long Run Fish and Game Club; Milan R. Butler, President, Asaph Rod and Gun Club; M. S. Dartt, President, Nessmuk Rod and Gun Club, Wellsboro; Thomas Kamiski, President, Hillside Rod and Gun Club, Blossburg; Herbert Button, President, Littlemarsh Rod and Gun Club; Ernest Chamberlain, President, Sullivan Rod and Gun Club, Mainsburg; Homer D. Austin, President, Pine Creek Sportsmen's Association, Gaines; Fred Wilson, President, Big Elm Rod and Gun Club, Millerton; R. D. Leonard, President, Tioga Rod and Gun Club; Leslie Wood, Game Protector, Wellsboro; Hugh Baker, Game Refuge Keeper, Asaph; Clair Rexford, Forester, Gaines; Bert Earl, Deputy Game Protector, Cody Roby, President, Tioga County Consolidated Sportsmen's Club, and L. S. Moshier, Wellsboro, Publicity Chairman.

Tioga County Consolidated Sportsmen were organized in 1937 with only six clubs. At the present time there are 11 clubs in the organization with about 1500 members.



Warden George Cross of Hammersley Fork and Special Warden W. Seid of Westport with a catch of trout they confiscated. Albert A. Lutz of Milesburg was prosecuted for having in possession 53 trout in closed season, fine \$530; illegal device, \$20; having 43 trout over limit, \$430, a total fine of \$980 and costs. William Berg of Milesburg was fined a total of \$45 and costs on counts of illegal device and no fishing license.



## OHIO CASTERS SCORE AT PITTSBURGH MEET

All of the casting championships at the Pennsylvania state tournament held by the Pittsburgh Casting Club at Carnegie Lake, Highland Park, were taken by out-of-town casters. The only Pittsburgh casters to win second places were C. W. Ward, veteran ace, and George Lippert.

Clyde Marshall, East Liverpool, Ohio, captured first place in the dry fly accuracy event with George Hall, Struthers, Ohio, capturing the  $\frac{3}{8}$ -ounce plug accuracy event and finishing second in the  $\frac{5}{8}$ -ounce plug event.

Marshall won the dry fly event with a 96 per cent score with Lippert taking second place with 95 per cent. In the distance fly event P. Angelo, Columbus, was the winner with a cast of 126 feet while John Peterson, Zanesville, Ohio, was second with one of 116 feet.

The wet fly accuracy event went to Dr. R. J. Merrill, Columbus, with 99 per cent and second place to Marshall with a 99 per cent score, Merrill winning the event on a re-cast.

The  $\frac{3}{8}$ -ounce plug accuracy event went to Hall on a 96 per cent score with C. W. Ward taking second with a 95 per cent score. In the  $\frac{5}{8}$ -ounce event Howard Adrian, East Liverpool, was the winner with a 97 per cent score with Hall taking second honors with a 95 per cent score.

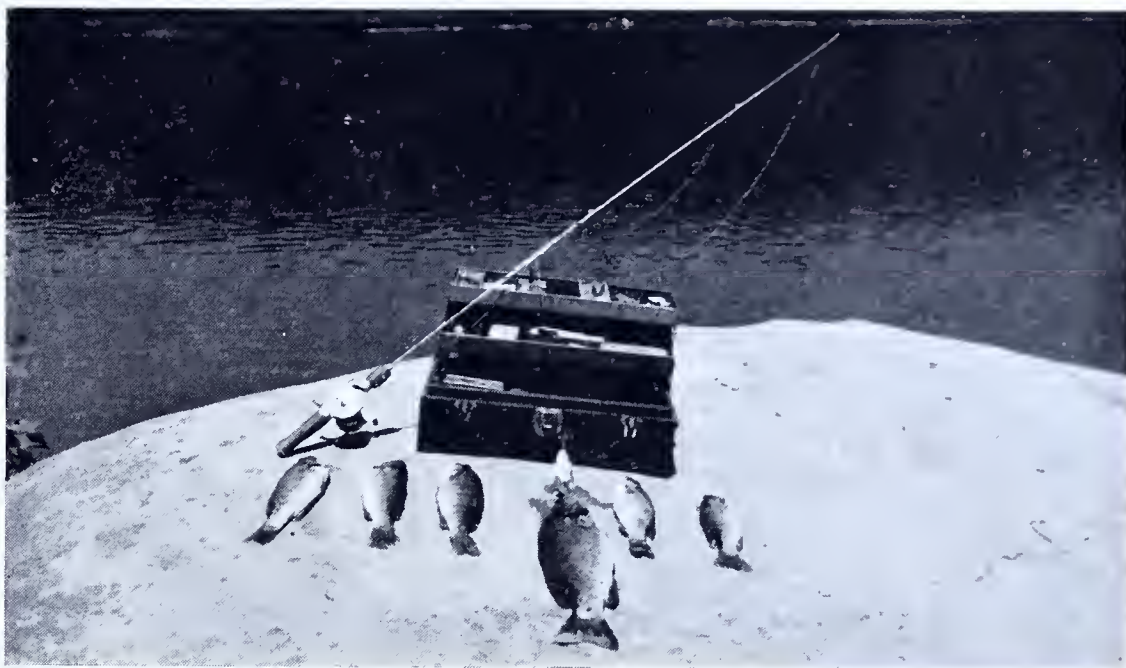
## WORK OF CHESTER SPORTSMEN LAUDED

"Hats off" to Ezra Morrison, William Peoples, Clarence Sheeler and others of the Coatesville Anglers' Club for the fine job they are doing in stocking our streams, writes an "appreciative Coatesville angler".

"A few years ago there was scarcely a fish of any kind in the streams, but when the trout season opened this year the same streams were well supplied with fish, and, at least one place on Buck Run, a half dozen Coatesvillians had their quota of ten trout before seven o'clock. Not just ordinary fish, but fine trout ten to twelve inches in length and the most delicious and edible fish that swim.

"It has been hard work going up to the fish hatchery every day for the last few years to feed these trout and rear them. It was hard work to interest the State and federal hatcheries in our streams, and it has been hard work for Fish Warden Pyle to see that the streams were properly protected after the fish were planted. But the efforts of all these people have resulted in giving this section the finest and sportiest kind of fishing, and our hats are off to all these good people who have brought this happier condition about.

"It is up to the people of Coatesville to get back of the Anglers' Club and see that they are supplied with funds to feed the fish they are rearing, and it is up to the Coatesville people to show their appreciation of the efforts of these various sportsmen associations in Chester County as well as the State Fish Commission and Federal Fish Commission, who have all contributed so much to restock our streams."



A catch of Allegheny River smallmouth bass made at Eagle Rock by Frank Young and Cy Terchick on July 2. Note the splendid girth of the largest fish.

## SAFETY ZONE SIGNS TO BE DISTRIBUTED

The sixth regular monthly meeting of the Hempfield Farmers' and Sportsmen's Association was held at the Landisville Fire House on October 2, with nearly 300 members and guests present.

W. J. Staley, President of the organization, was in charge of the meeting and reported that 1,000 Safety Zone signs had been received by the association.

For the benefit of the Farmer and Landowner who may be interested in erecting these Safety Zone signs; they can be secured from the following persons in each respective district: Harry Hoffman, Jr., Rohrerstown; Robert Enterline, Salunga; Daniel Will, Chicques; Scott Nissley, Bamford; Fred Long, Landisville; Milton Martzall, Mechanicsville; Floyd Zerphy, East Petersburg; Leonard Keck, Mountville; Alvin Greider, Centerville-Oyster Point; C. G. Spangler, Ironville; and Arthur Mort, Silver Spring.

It was suggested to have the siren of each Fire House sound at 9:00 A. M. of the first day of the small game hunting season in the Hempfield area. This was put in the hands of the Directors of the Zones in which Fire Houses have been built and it is expected that they will cooperate with the association in this matter.

Speakers for the evening were Alan Wiker, President of the Lancaster County Federated Sportsmen; Milton Dietrich, deputy game warden; Mervin Murray, deputy game warden; William Kopp, Secretary of the Lancaster County Fish and Game Association; Lyle Simmons, Secretary of the Columbia Fish and Game Association; Raymond Stetler, trustee of the Fair Play Hunting Club, while the principal speaker on the program was John M. Haverstick, Lancaster County game protector, who talked on the pheasant damage situation.

Harry M. Reed then showed seven different reels of sound motion pictures of interest to sportsmen. Floyd Zerphy, Zone Director of the East Petersburg area, invited the group to meet either at the East Petersburg Fire

House or School, on November 6. The program then will consist of a running lecture with motion pictures by Randolph Thompson, lecturer of the Pennsylvania Game Commission.

## NEW CLUB FORMED AT SHICKSHINNY

About twenty sportsmen from Shickshinny met at Fred E. Smith's office, and organized a Hunting and Fishing Club. The name of the club is, "Five Mountain Hunting and Fishing Club."

The following officers were elected to serve for the coming year: Fred Smith, President; Scott Kline, Vice President; E. H. Thompson, Secretary; and Willard Thompson, Treasurer.

The purpose of the club is to create better sportsmanship, apply to the State for game and fish to stock in our local woods and streams. To establish reforestation projects wherever suitable. To assist the Game, Fish, Forests and Waters Departments of Pennsylvania; bring about more friendly relations between landowners, tenants and sportsmen. The improvement and purification of our streams, assist in reforestation, and to control vermin.

All wishing to join are requested to meet with the club at the next meeting at the Firemen's Club rooms over the A. & P. store.

## OUTLINER JAILED

Banks Klase, who resides along the Juniata River in Milford township, between Mifflin and Port Royal, served a twenty-seven day sentence in the Juniata County jail as the result of illegal fishing operations. He was arrested by C. V. Long, of East Waterford, Fish Warden, for using "set lines," illegal devices, in the river near the Klase home.

At the hearing before Robert B. Parker, Jr., Justice of the Peace at Mifflintown, Klase was sentenced to pay a fine and the costs of the case. Unable to pay the fine he was remanded to jail.



# HUNTSDALE HATCHERY



New pond construction at lower section of hatchery, showing section as yet undeveloped.

(Continued from Page 5)

with a temperature higher than 52 deg. F., hatches the eggs prematurely, resulting in weak and undesirable fish. Spring No. 5, because of its favorable temperature and location, was chosen for the water supply for egg hatching purposes, and a temporary building was constructed for this purpose. The trout eggs were obtained in November, 1933, and hatched out in the latter part of December, 1933. The results were most gratifying and the returns have been very favorable each year since.

From these experiments, sufficient knowledge of the characteristics of the water was had to warrant the start of the permanent construction work. The building of the first series of ponds, along permanent lines, started on February 18, 1933.

The first work, along permanent lines, was to confine the water in the various groups of springs. The water from Springs Nos. 1 and 2 was conducted in such a manner as to feed the same series of ponds. Springs Nos. 3 and 4 were used to supply a separate section of the hatchery. Spring No. 6 was led into Irishtown Gap Run, and used for an independent series of pools. Spring No. 5 was conducted through the hatchery building.

Another problem that caused considerable anxiety was the increased head that had to be placed on the Spring, in order to give the necessary aeration. It was found that an average of two feet could be placed on each group. For every foot that the head was increased, above the two feet, water flow diminished approximately twenty-five per cent. Placing a pressure on the mouth of limestone springs is always accompanied with risk, as the water course is apt to seek a new channel, thus drying up the original spring site. This was also feared and the elevation was left at the two feet level. This elevation was not very great for aeration purposes, and in order to overcome this

defect, the aerators were built similar to a series of steps, the length being in proportion to the spring flowage. The aerator at Spring No. 4, is approximately 100 feet long, and the water passes in a thin veil over a series of three steps.

One admirable feature of the plant is that the upper section of the hatchery pool is fed by three independent sources of water supply. The upper sections of hatcheries are always used for the baby fish. Baby fish are more susceptible to disease than the older ones, and preventative measures, for the control of disease, are always practiced. The three separate sources of supply segregate the Huntsdale plant in three independent units. If disease occurs in one section, there is little danger of it entering the other areas provided proper caution is taken.

With the exception of confining the springs and the construction of twenty-eight permanent ponds, the work of building the plant, has been carried on under the Works Progress Administration. This agency started work on September 20, 1937, and to date have completed 153 ponds and the hatchery building. This development was laid out on a tract of land comprising 44 acres. The building of the ponds required the moving of approximately 85,000 cubic yards of earth and the pouring of 2000 yards of concrete, and 31,000 square yards of fine grading. Because of the outstanding result obtained with the fish grown on this development, the Board recently purchased 20 additional acres of land, and the Works Progress Administration have started to construct this area into additional fish growing pools, and when completed will add forty-two additional ponds to the present number, making a total of one hundred and ninety-five. In order to develop the 20 acres it will require the moving of 13,325 cubic yards of earth, and the use of 940 cubic yards of concrete, and 9,000 square yards of fine grading. To date the construction of the building and the 153

ponds, grading, etc., has cost the Board of Fish Commissioners, as of September 30, 1939, \$57,906.32. The balance has been assumed by the Works Progress Administration.

It will be noted that the creation of the Huntsdale Hatchery was done in a series of developments. First, twenty-eight ponds were built and tried out. After these proved successful, additional ones were constructed, and the 20 acres now under construction were not seriously considered until the total of 153 ponds had proven themselves. At the present time, the possibility for future enlargement appears to be almost unlimited, but no work will be done to enlarge the plant beyond the present plans until the area now under development has been completed and given a thorough trial.

The plot on the upper end of the property consists of areas designed expressly for the growing of warm water fish, such as black bass, bream, catfish and minnows. The water supply comes from Irishtown Gap Run, a small mountain stream, supplemented by a large spring. This water is conducted through two large ponds of a combined area of approximately four acres. These two ponds are used for holding brood fish, and to bring the summer temperature of the water to a point favorable for the rapid growth of this species of fish. After passing through these pools the water is conducted through a series of nineteen smaller ones, that will be used as nurseries for the baby fish. Adjacent to these ponds is the daphnia unit, consisting of ten concrete beds, where the necessary live food for the baby fish will be cultivated. The balance of the pools can be fed direct from the spring water supply if they are being used for trout work, or the water control is so arranged that the tempered water from the warm water fish area can be diverted through over one-half of them. In other words the water courses are so arranged that with the exception of a part of the plant, any pond or any group of ponds can be supplied with cool spring water if they are being used for trout or supplied with warm water if it is desired to use them for growing warm water fish.

The hatching building that was placed in service last winter is a one story building, Quaker Meeting House type of architecture, constructed of native limestone, with metal doors and windows, and a cement asbestos shingle roof. The building is 120 feet long and 33 feet 8 inches wide, consisting of an office, tank room and aquarium room. The tank room is designed for the handling of trout only. In construction it is a new departure from the conventional type, chiefly because all tanks and troughs are of metal construction. At the present time the aquarium room is being used as headquarters for the construction crew, but this winter it is the program to install a series of glass tanks, where native Pennsylvania fishes and other forms of aquatic life, will be on display.

The twenty acres recently acquired will, when completed, comprise forty-two additional ponds of various sizes, together with another hatching building, designed to handle both warm water fish and trout, and to serve as a shipping building where the fish will be sorted, counted and weighed before starting on their journey to the public fishing waters.



On October 5th, ground was broken for the construction of a fish food storage and feed grinding building. The construction will be of the same architectural design as the hatching building, will have cold storage with facilities to keep fifty tons of fish food, and an ice making machine, the product of which is used in transporting fish. The grinding room facilities are capable of preparing a ton of food an hour. Architects are now working on the plans of a building to be used as a garage, store house and work shop, and it is the intent of the Board to construct this building in 1940. Plans are also in the making for the landscaping and beautifying of the grounds, including the reconstruction of the Superintendent's residence, with the thought that in a few years the Huntsdale Fish Farm will not only be one of the largest fish producing stations, but also one of the outstanding show places in the country.

All of the Board's hatcheries are open to the public seven days of the week, between the hours of 7:30 A. M. and 5:00 P. M., and you are cordially invited to visit Huntsdale and watch it grow and develop into an institution that the sportsmen and general public can point to with pride in years to come. The village where the hatchery is located is on a State Highway reached South off of Route 11, between Carlisle and Shippensburg.

## OLD TOWN SPORTSMEN BACK THREE PROJECTS

Early this spring the Old Town Sportsmen's Association felt the need of promoting several worth while projects for the betterment of the sportsmen, a meeting of this committee with a committee on Parks and Recreation of the Clearfield Chamber of Commerce was held. The sportsmen proposed eight different projects, seven of which were approved by the Chamber of Commerce committee. These projects were very broad in their scope and it was decided to drive for the completion and successful staging of three of these projects this year.

The three projects decided upon were: 1—Erect and maintain a TOURISTS FREE INFORMATION BOOTH; 2—Stage a NATURE APPRECIATION WEEK during the week that the laurel blossoms were at their height; 3—Construction of NATURE TRAILS.

The sportsmen and Chamber of Commerce realized that the successful staging of these projects would require a tremendous lot of support and decided that they would enlist the cooperation of all the civic organizations in Clearfield. In order to enlist this necessary cooperation, letters were mailed to all organizations asking that they appoint several representatives to act in behalf of their organization. The results of these letters are very evident from the almost 100% response, which played an important part in having the general committee proceed with the detailed plans for these projects listed above.

In making plans for the projects the general committee has listed all of the work that will be necessary and segregated it so that it can be carried out by the various groups that have signified their willingness to cooperate. The successful completion of

these projects will depend wholly upon the individual groups that will be designated as sponsoring each necessary portion of the projects. Any group failing to promptly and efficiently enact their allotted part to the ninth degree will seriously affect the entire program, which must be completed and in operation by June 1st.

Following is listed the work necessary and the organizations assigned for the carrying out of each project.

### TOURIST FREE INFORMATION BOOTH—

Design and plans for the booth prepared by Jack Mohny of the Old Town Sportsmen's Association.

Material necessary for the construction of the building, costing approximately \$150.00 to \$200.00 furnished by the Clearfield Chamber of Commerce.

Obtaining of the site for the building with the necessary permission of the local and county authorities—Arranged by Harold Boulton of the Sportsmen's Association.

Erection of the building and the fixing of the approaches—Clearfield fire companies, suggested supervisor—William Ryan.

Landscaping and decorating the site with suitable evergreens and shrubbery—Mr. Wm. F. Dague, District Forester.

Painting of the necessary signs for the booth and for various parts of the town, announcing the existence of the booth.

Erection and placing of the signs at strategic points—J. B. T.

Interior decoration of the booth—Senior Art Group.

Staffing of the booth—Junior Woman's Club, all Clearfield Boy Scout Troops, Amaranth.

Furnishing the booth and surroundings with suitable furniture, etc.—C. D. of A., O. E. S. and the Senior Woman's Club.

Life is much like learning to skate. We go somewhat where we choose, but mainly where the skates take us.

## GOING FISHING

(Continued from Page 9)

catch some big fish! Is that a long ride home!" All the camping equipment is unloaded in the hall, living room and even the dining room. We'll put everything away tomorrow they promise, and away to bed with the three of them. So Mother and I start putting things away that very night, because they have promised before. By that time they are settled in bed with groans—fishing all day Sunday and a four hour drive home, Boy! Are we tired! But Monday evening it begins all over again with—Say, fellows, I just heard of a peachy place to fish. Lots of bass and not very far from here!

Oh, surely! They've taken me fishing. Squeezed me in the back seat of the car and told me what a swell camper I was. But I think they were referring to my work around the gas stove more than my plugging or casting. So I think preparing and planning a fishing trip has as much thrill and excitement as sleeping in a tent with mosquitoes or getting up at five in the morning to fish in the chill grey mist.

## FRAZER TOWNSHIP SPORTSMEN ELECT

President Otto DeQuinze and Treasurer Tom Frederick were reelected to office for the sixth consecutive term at the annual election of Frazer Township Sportsmen's Club, it was announced.

Other officers elected for the 1939-40 term include: Martin Korim, Vice President; Phil Dorn, Secretary; John Williams, Assistant Secretary; Dale Wells, County Federation Delegate; William Pater, County Federation Alternate, and Leon Hue and Frank Pater, Directors.

Everything that is worth while has a fence around it—but always there is a gate and a key.



Trout nursery ponds with aerators from springs in background. Upper end of hatchery.



## LATE AUTUMN FISHING

(Continued from Page 7)

keen sport during this, the last month of the warm water game fish season in Pennsylvania.

While plugging for wall-eyes has been found a most satisfactory method in taking these fish, we must concede the edge in late fall fishing, however, to the trolling rig, the



Courtesy—Allentown Morning Call

Ray Hess of Fullerton with his 27½ inch walleyed pike taken in the Delaware River this year. It tipped the scales at 6 pounds even.

spinner and nightcrawler combination. This type of lure was illustrated and described by Charles M. Wetzel in his splendid article on wall-eyed pike and pickerel fishing appearing the October issue of this magazine.

There's mighty fine appeal to tail-end of the season fishing. It has atmosphere, mist rising from lake and stream, frosty mornings with the air carrying just the tang which appeals most to the sportsman. For those of us who hate to put away the casting rod for its long winter sojourn and then count the days until the opening of next bass, pickerel and wall-eyed pike season, November offers real prospects of some fine action astream. Tight lines.

## DYNAMITERS JAILED

Catching trout by dynamiting proved to be a profitless adventure for two men from the Clearfield region who were given 100 days in jail when arraigned before a justice of the peace.

The two men Ralph Baney, 31 and William Keeler, 39, were arrested by motor police from the Clearfield patrol. Police testified that the two men dynamited a hole at Middle Lick Run in Goshen township and scooped up "four or more" fish.

There is nothing that costs so little and goes so far as courtesy.

## Toward The Conservation of Our Streams and Waters

(Continued from Page 13)

to the use of our streams for the development of hydrolic power and for other commercial purposes as long as such uses are within reason, and we are willing to abide by conditions which may interfere with our sport in that sportsmen, no more than other groups, have a monopoly on the use of our water resources. We do object, however, to limitations which result from unwise and purposeless control. I am referring in particular to a policy on the part of the Game Commission that has tended to prevent fishermen from using the waters that pass through their game refuges. This is absurd, and sportsmen should rise up in revolt against such control of our streams on the part of state officials because, it is not only unsound, but charged with social objections that will result in much harm if continued. These illustrations are merely suggestive, but they are sufficient to make us realize that one important problem in the conservation of our streams is to determine their use, and then apply such policies and restraints as shall guard the primary purposes of the waters in question. You will find that many people will be benefited by your efforts, and that there will develop a strong motivating influence for the conservation of our streams on the part of the general public which will create an opinion against polluters stronger than any mandate, because they will realize that their interests are being vitally effected.

In addition to the application of sound conservation principles we must have in every community in the state a committee that is vitally interested in the welfare of our streams and that is forever on the job. This committee should have a knowledge of the Pure Streams Act and know how to proceed with prosecutions. One evening I was standing on the bank of a stream which was full of dead fish that had been killed by carelessness. With me were some city officials; they were indignant at the sight that confronted them, and violently disposed toward the Sanitary Water Board for its indecision in dealing with the situation at hand. I said to the man, "Why don't you instruct your city solicitor to proceed against the offender. You have the right according to Act No. 394?" This is not all that was said, but here was a man who did not know that he had within his own hands a solution for the problem that he was facing. There should be at least one member on this committee that would know how to take samples of polluted water, and be equipped with the necessary materials for collecting such. In a recent case of pollution it was only due to the careful collecting of samples that led to the correcting of the condition. This committee should have a thorough knowledge of the streams in its community. It should know where the sewage disposal plants are located; it should know the exact spot where each storm sewer empties its contents into the stream; it should know what institutions and industries, if there are any, that are connected up with the storm sewers that do not empty into the disposal plant and it should know what agencies to contact in times of emergency. Some of our worst cases of pollution happen at the most unexpected places and at times when we are least aware of it. Unless it is

detected at once, the opportunity is gone to correct the condition by apprehending the offender. It is not the stream that is labeled as a polluted stream that causes us the greatest anxiety but rather the relatively clean stream that has potential sources of pollution. Therefore it is imperative that this committee knows the location of bottling works, dairies, and bungalow areas as well as industries, municipalities without disposal plants, and institutions. It must also recognize that soil erosion is far more detrimental to the welfare of our streams than any other factor, and so cooperate with those agencies that are dealing with soil conservation.

The work of such a committee may sound like a man's job. It is, but it is by no means as difficult as it sounds. Such work is fascinating, and it is astounding to observe the results that it attains. Practically in every community we have a hunting and fishing club, a sportsman organization, or some kind of a conservation group dedicated to the conservation of our streams. Let them organize a committee along effective lines and our streams will soon become social and economic assets rather than liabilities.

To the application of sound conservation principles and the working of an active committee I would suggest the application of sound common sense in our program of stream conservation. The ultimate success of our efforts will depend far more upon the strategy we adopt, and the tact we show, than in law enforcements or any tirades we may let fall upon the polluter. I know of instances where corporations have more than conformed with legal requirements in averting and abating pollution, and yet the unforeseen has happened to thwart the very purposes for which they made substantial investments and followed the most competent engineering advice available. I know of one stream that was polluted because of sabotage. This was not generally known to the public, nor even to the man who owned the plant from which the pollution was emitted. I know of a case that resulted from the carelessness of an individual worker. And I also know of cases of pollution that are unavoidable because of man's inability to cope with them. It doesn't require any unusual gifts of insight or mentality to see thousands of dead fish floating down a stream, but it does require something above the average to maintain one's poise of mind and temper at such a sight so that something of a constructive nature can be done to prevent it from happening again. I have invariably found that those who have been responsible for such destruction of life have been much distressed and penitent. Generally they have been only too anxious to make amends and pay for the damage that has been done. But how many times have they been the victim of circumstances over which they had no control. Suppose you do prosecute and get a conviction, what have you accomplished under such conditions? Here prosecution becomes persecution and accomplishes nothing of permanent value. Some of us have found that there is such a thing as cooperative relationship between those who may have been guilty of polluting streams and those of us who are interested in keeping them clean; and that to get together with open minds on such problems when they present themselves, in the spirit of sportsmanship, will accomplish far more in the conservation of our streams than re-



sorting to the instruments that legislation has placed at our disposal.

Such a program is not by any means conclusive, for as we proceed with our work, new problems will present themselves, many of which will be purely local that require a kind of solution that is not to be found in books. However, I do feel, and most decidedly so, that any program which tends to conserve our streams and waters must proceed along such lines as suggested above. It definitely places the responsibility where it belongs—with us and not some government agency. I have found that when we do our part, state agencies are placed in such a position that they cannot do anything but act. Believe me, I have ample evidence to substantiate this statement.

Fishing Creek in Columbia county produced a mighty fine largemouth bass for Philip Knouse of Bloomsburg, RFD 1, this season, according to a report received from Warden Harry Carl of Elysburg. This bass, 20½ inches in length, had a weight of 5 pounds 8 ounces.

Warren county had some mighty fine brown trout in its waters as far back as 1911, according to a report received from Warden R. C. Bailey of Youngsville. During that year, J. D. Upton of Garland, caught a 24 inch brown trout in Hosmer Run that tipped the scales at 4¼ pounds.



C. E. Miller, sports editor of the "Record-Argus", Greenville, kindly sent the ANGLER this fine photo of a youthful angler and the fine walleyed pike he caught in the Big Shenango River this season. Andy Macko of Shenango landed the fish, a 25 inch pike weighing 5½ pounds and one of the finest taken this year.



Tourists' Free Information Booth of the Old Town Sportsmen's Association of Clearfield County.

# Some Remarks on the Feeding Behavior of Fishes

(Continued from Page 3)

lose their vigor and become quiescent until the return of the sun.

It is a fact recognized by science, that in some ponds which are overgrown thickly with vegetation, so large an excess of carbon dioxide may have accumulated during the night as to endanger fish life before morning. This danger is especially likely to occur in late summer when the temperature of the water becomes high and it bears a large amount of decaying organic matter.

It is known that the different species of fish vary considerably in their oxygen requirements and fishes of the Salmon family seem to head the list in this respect. These requirements are stated by Dr. Paul Needham(2) to be approximately 7 parts per million for fingerling brown trout, and they died when the oxygen content dropped to 3 parts per million with the water temperature at 64° F.

At the opposite end of the list of oxygen requirements we find such fishes as the cat-fish and the German carp which are notorious as being able to survive in oxygen-poor muddy ditches and puddles where even a tadpole would have hard going. That the respiratory and nervous systems of these very diverse fishes are quite different is obvious and it would be folly to expect them to respond equally to similar physical stimuli or influences as regards feeding habits.

The different species of fish also respond to variations in temperature of the water in quite different ways. For instance, according to Dr. Needham "when the temperature of the water reaches 75° F., the brown trout cease feeding and sink to the bottom where they remain motionless". But such a temperature is merely stimulating to the largemouth bass and even the smallmouth may remain active and happy in water at 80° F., if this is well aerated.

During the late summer, usually in August in the northern states, the surface layers of

water in many lakes and ponds reach their highest temperatures of the year, and as free oxygen escapes rapidly from warm water, the supplies of it then may reach a low level.

At this time, too, such waters become further depleted of their oxygen through the death and decay of huge quantities of minute plant and animal life, the plankton, which had been multiplying since spring. Their oxidation, or decay, consumes much oxygen and generates in its place volumes of carbonic acid gas, the same gas that "gets up your nose", when you drink a bottle of pop, and which though very necessary to both plant and animal life will not alone sustain them and in fact may act as a poison when present too abundantly.

At such times a green scum or bloom usually appears on the surface of the water, which is known to biologists as "the plankton scum" but the country people sometimes say that the "pond is working".

During this period, which may last for several weeks, the game fish usually refuse to rise or strike probably because the depletion of their oxygen supply robs them both of appetite and the energy required for such activity. It seems quite likely also that this condition is the true explanation of the sluggishness of muscullonge and similar fish which are popularly supposed to "get sore teeth" at this period.

During very hot, dry summers, when streams become unusually low they not rarely reach a similar state of oxygen depletion and carbon dioxide abundance. At such times, the shells of live mussels taken from these streams may appear pitted and corroded by the carbonic acid contained in the surrounding silt and water. The sad part of this is that this condition is likely to occur at height of the popular vacation season while fishing is a most preferred sport. There is, however, no known cure for this sad state of affairs and the angler is lucky who can find another body of water not thus afflicted.

(Please turn Page)



Now I would not leave with anyone, who has done me the compliment of reading this somewhat extended discourse, the thought that I believe all of the vagaries of fish behavior in this respect are due to physical and chemical causes—far from it. It is indeed very probable that many of these daily or hourly changes in their behavior are the result of psychological whims or reactions on their part. The psychology of fishes is a field but slightly investigated and one very difficult of exploration, but it is evident from the little that has been learned, that fish have considerably more "mind" than has been generally believed. In spite of the attempts of one school of scientists to persuade us to regard fishes as mere senseless machines, it has been shown that they possess memory and are able to profit by experience.

According to Professor F. B. Sumner,<sup>(3)</sup> of the Scripps Institution of Oceanography, and a keen student of the psychology of fishes; "It is common sense, rather than scientific experiment which leads us to believe that the fish is not a mere unconscious mechanism \* \* \* the psychological responses of fishes seem to be closely similar to those known to hold between these same stimuli and our own perceptions of them. On any theory we must grant the existence of some sort of organic memories or "engrams" recorded in the nervous systems of the fishes". Any angler who frequents a hard fished stream and who observes the behavior of the fish in it will not fail to believe these statements.

When, in the course of the years, complete biological, ecological and psychological studies of each particular species of our principal game fishes have been completed and compared, it may then become possible to derive and construct a tenable theory to explain their now mysterious behavior. When this occurs, however, much of the present charm of angling will have departed.

In the meantime, it is to be expected that fisherman's calendars and Solunar Tables, compounded though they be of fiction, folk lore and flappedoodle, will continue to attract and intrigue two-legged suckers.

#### Defiance

I am a fish and don't you wish  
My actions you might solve?  
The moon and sun are merely fun  
For me, as they revolve.

And I will bite when feeling right,  
When things are to my taste;  
When I decline, haul in your line,  
Your fishing's only waste.

I glide with ease where e're I please,  
Despite old Gravitation,  
Dense atmosphere I do not fear,  
Pooh-pooh! your desperation.

<sup>1</sup> Solunar Tables, Forecast of daily feeding times of fresh and salt water fish for the season of 1939, J. A. Knight, Orange, N. J.

<sup>2</sup> Trout stream conditions that determine their productivity and suggestions for stream and lake management, Paul R. Needham, Ph.D., Comstock Publishing Co., Ithaca, N. Y., 1939.

<sup>3</sup> Human Psychology and Some Things That Fishes Do, Scientific Monthly, Sept. 1939, pp. 245-255.

And now they're telling about a Scotchman who ate an apple every day, except for the two weeks the doctor was away on vacation.



### SOUDERTON MAN RAISES WORMS

Raising earthworms can be developed into a first rate business, according to William F. Musselman of Souderton, who writes.

I am in the earthworm business. In this section, night-crawlers are mostly in demand. Have made some very nice shipments to date. Not being physically strong and incapable of doing hard work due to severe attacks of rheumatism, it struck me in 1934 that our many fishermen in this section needed a place where they could obtain bait with which to fish at any time.

One day I rigged up an electrical device to coax the worms to the surface of the ground. Finding this a success, I began to keep a stock on hand and told the fishermen I had worms for sale. Now I have established a very nice business.

I always have one box of breeders, thereby raising my own stock.



### PICKEREL PLEASURE

(Continued from Page 10)

are placed at the points designated in Figure 1, to further secure the assembled plug and the head is filled with plastic wood. Give the plug a coat of varnish and allow ample time to dry, then paint the back dark olive green. The underside is not painted in order to allow the foil to show through the semi-transparent body. Eyes may be painted at the head and a red stripe painted along the entire length of the body, giving the little plug a finished appearance.

In Figures 2, 3, and 4 various types of spinners that are especially attractive to pickerel are shown. The propeller type shown in Figure 2 can be purchased in plain and luminous finishes. They are very attractive and will take fish quite consistently.

Several years ago I ran across a twin spinner, quite long and narrow that approached the willow leaf pattern. This spinner attracted the attention of fish but there seemed to be something lacking. I made one of the same pattern of copper and found that it improved the qualities a great deal. It is noticeable that the tackle shops do not stock copper spinners but I am convinced that they do not arouse the suspicion of fish nearly as quickly as the brighter silver or nickel ones.

Figure 5 is one of the late patterns employing the rubber "Hula skirt" as it is called. This device imparts plenty of action and sure does coax some of the big fellows from deep pools.

Figure 6 is an old standby, made in heavy weights for casting rod use and in the smaller sizes for the fly rod. I made several of these spoons of heavy sheet copper and painted the outside in contrasting red and yellow stripes. A strip of rubber "pork rind" attached to the trailing double hook adds to its attractiveness.

All these lures like many others will take fish at times, but for real pickerel pleasure try the fly rod and light lure and I am sure you will hold these splendid fish in higher esteem.

Twenty years ago we finished fighting to make the world safe for democracy. Now we're worrying about how to make it bomb-proof.



COPY OF STATEMENT AS FILED WITH ALLENTOWN POST OFFICE

October 6, 1939

Statement of the ownership, management, circulation, etc., required by the Act of Congress of August 24, 1912, of Pennsylvania Angler, published at Allentown, Pennsylvania for November, 1939.

Before me, a notary public in and for the State and county aforesaid, personally appeared Alex P. Sweigart, who, having been duly sworn according to law, deposes and says that he is the editor of the Pennsylvania Angler, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 411, Postal Laws and Regulations, printed on the reverse side of this form, to wit:

1. That the names and addresses of the publisher and editor are: Publisher, Commonwealth of Pennsylvania, Board of Fish Commissioners, Harrisburg, Penna.; Editor, Alex P. Sweigart, Harrisburg, Penna.
2. That the owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding one per cent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a firm, company or other unincorporated concern, its name and address, as well as those of each individual member, must be given.) Commonwealth of Pennsylvania, Board of Fish Commissioners, Harrisburg, Pennsylvania.
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Signed: Alex P. Sweigart.

Sworn to and subscribed before me this 6th day of October, 1939.

Signed: George B. Kirsch.

[Seal] Notary Public.  
My Commission expires March 9, 1943.

BIG WALLEYED PIKE TAKEN IN BEDFORD

What looked at first sight like a baby whale, but turned out to be a 29½-inch wall-eyed pike, was being exhibited by Charles H. Lloyd in Bedford recently.

The big walleye, one of the largest game fish taken in Bedford County waters this year, weighed 7 pounds and 9 ounces. Lloyd caught it near Felton's Dam, in the Raystown branch. He brought it close to the shore three times before finally landing it.

This is the largest pike taken in these waters in several years. It is believed the record is held by Walter Evans, who took a pike weighing almost 10 pounds, about 10 years ago.

TROLLING YIELDS FINE WALL-EYE

Earl Tischler of Pittston caught a 26¼-inch wall-eyed pike while fishing in the Susquehanna River at Falls, at a point directly in front of Roy Knowles' "Willow Grove" cottage.

He was trolling with a "June Bug" spinner at the time. The fish weighed 4 pounds, 14 ounces. John Devlin, Jr., of Pittston, was his companion.

BIG SNAPPING TURTLES CAUGHT BY TRAPPING

Wrote W. H. Fairchild, ardent conservationist of Freeland, Pa.:

I have been reading with interest the various articles from time to time in Pennsylvania Angler and other publications with reference to fish predators, and note that our Fish Commission puts the watersnake first on the list. I can agree with this in reference to streams but must disagree when it comes to river and lakes where most of our bass fishing is done. I contend that the snapping turtle is No. 1 fish destroyer.

After reading in OUTDOORS of the war on snapping turtles, I placed an order for a turtle trap and after seven days had caught 17 turtles, weighing from 8 to 25 pounds in our lake of about 50 acres. Am convinced that this same condition exists on many other lakes and ponds.



Three snapping turtles weighing from 18 to 24 pounds. They were taken in a lake near Freeland by W. H. Fairchild of Freeland.

LEBANON ANGLERS SCORE CATCHES

They're still talking in Lebanon County about that monster bass which Bob Heverling caught at Strack's Dam. The fish tipped the scales at four and a half pounds and stretched the tape 22 inches.

Heverling's nearest rival, John Zidak, hooked into a three and a quarter pound largemouth earlier in the season at the Water Works dam.

Andy Allwein, with a 13½-inch crappie bass to his credit, is showing the way in that division of the contest. It was caught at Light's dam.

An 18¾-inch pike (which in this section of the country are actually pickerel) is the best effort recorded this far. Howard F. Hummel reeled the fish in from the waters of Stoevers dam.

The Susquehanna River, near Peachbottom, produced an all time contest record for blue gill sunfish as Robert Fitzner beached a 9¾-inch sunny.

November 30, the last day of bass season marks the end of the contest, so there's still plenty of time to better the above marks.

A similar contest is being sponsored by the "R" Field and Stream Association.

Lebanon County anglers showed up splendidly at the annual Harrisburg casting competition held at Italian Lake in Harrisburg.

Russell Skinner, well known Palmyra sportsman, came through with top honors in the fly casting for distance with a score of 86 feet, 8 inches, as a fellow townsman, James Smith, captured runner-up honors by virtue of a 72 foot, 4 inch heave.

Skinner also emerged victorious in the wet fly accuracy event in which Smith also finished second.

H. B. Wagner, Jr., of Lebanon, was second in the dry fly accuracy contest.

Nobody succeeds in a big way except by risking failures.

We knew this would happen! A lady called up the police and wanted to borrow their lie-detector, to use on her husband.

No man can ever become a failure without his own consent.—KVP.





## HERE <sup>A<sub>N</sub>D</sup> THERE IN ANGLERDOM



"A few words regarding smallmouth bass fishing in the Upper Delaware River", writes Special Warden Charles E. Biddlecombe of Berkshire Heights, Pa. "The number of bass caught this year has not been as great as in former years, but size has been much larger. In thirty years of fishing this stream I have not caught or seen caught as many large bass as I have observed this season. A resident of New Jersey, at Belvidere, caught one weighing over 6 pounds and I know of one near Easton and one at Portland weighing over 5 pounds. I have caught two bass over 4 pounds, five between 3 and 3½ pounds and perhaps 25 over two pounds. One Sunday I caught 10 bass ranging in length from 12½ to 17½ inches (four of this lot over 14 inches). Live bait seems to predominate in making catches with a very small number of bass caught in this river on artificial bait. My favorite live bait are the crayfish and lamprey eel. Helgramites have not produced this year as in former years. Wall-eyed pike have not started to bite as yet; we have much better fishing in October. With the best part of the season coming, I look for some very large bass and pike to be caught in this famous bass stream. Tell the readers of the ANGLER to come and enjoy some of this good fishing. You can refer anyone anxious for a good day's sport to me, if you wish, and I can tell him where he would be most likely to have good luck. There is room here for droves of fishermen, with plenty of nice places to camp or park their cars. Above all, if they fish the right way, they will stand an even chance of catching some nice fish.

One of the nicest catches of pickerel reported to date this season was that scored by Joe Larmerd and Cy Campbell of the State Department of Agriculture in Pocono Lake, Wayne County. Casting spoon yielded a creel of five pickerel, ranging in length from 19 to 24½ inches and having a total weight of 18¾ pounds.

Lloyd Pierson of Springville went Martin one better during the bass season, however, according to a report from V. B. Corle of Montrose. While fishing in Little Elk Lake in August, Lloyd scored a double on largemouth bass with his plug, taking two on one cast, each of which weighed 2¾ pounds.

Susquehanna County this year has been producing some giant eels, Corle reports. Arthur Nye of Montrose, fishing in Heart Lake in August, caught an eel 42 inches long that tipped the scales at 8¾ pounds.

Ever hear of vegetarian bass? If you haven't, the following report from James W. Miller of Gardners, Pa., may well be pasted into the fishing notebook under "Unusual Catches". He writes: "I happened to be fishing Brown's dam near my home last week for carp. My bait was white canned sweet corn which seemed appealing to most creek fish as food. Before leaving the spot, I had caught two smallmouth black bass measuring 12 and 13 inches respectively. Catfish apparently liked this bait, too, for I caught three of these during the interval of time elapsed in taking the bass. At different times I have caught catfish on sweet corn while fishing for carp. These other species of fish would observe the bait lying on the bottom of the creek, snatch it up and make away with it much as bait fish do."

From Dave Fisher of Hummels' Wharf, comes the following report: "Sam Wildt of Selinsgrove caught a 12-pound carp at Shady Nook in the Susquehanna River and another broke his line for him. Had a nice catch of other species. Fishing in general seems good in this area."

"Fish and Feel Young" is a slogan of Mrs. Rebecca Edwards of South Sterling, Pa. Ninety years old, her favorite sport is trout fishing. During the 1938 trout season, her largest fish was a 19-inch brown trout, while this year, the top trout taken measured 18 inches in length.

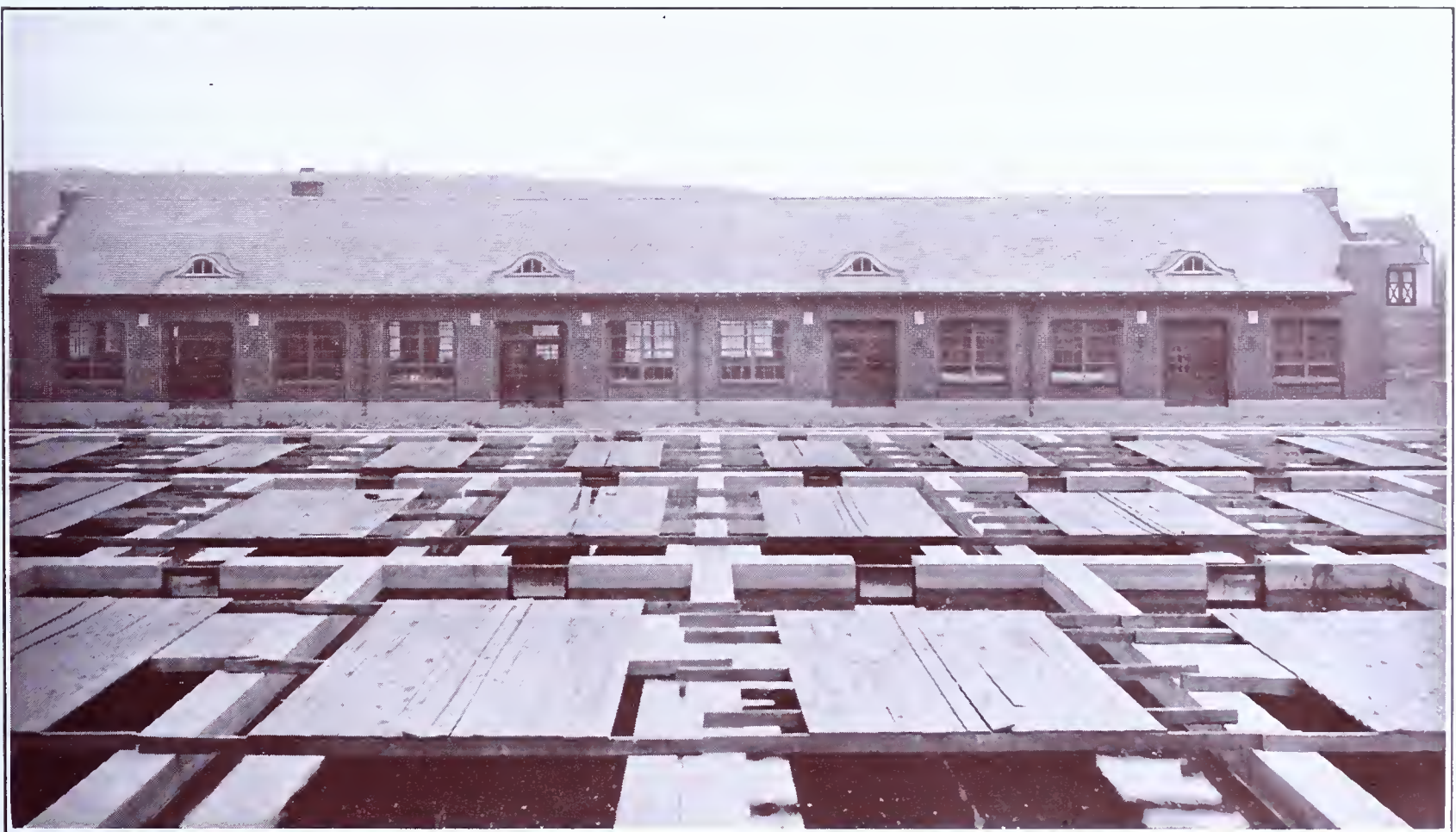
A fine catch of smallmouth bass was taken in the Susquehanna River at New Buffalo, Perry County, recently by R. S. Chilton of New Buffalo. Five smallmouths from 11 to 15 inches in length comprised the catch.

Noted for the heavy girth and splendid condition of the largemouth bass it produced each year, Lake Gordon in Bedford County has long ranked as a plug fisherman's pet. In checking reports received from Warden Harry Moore on catches in the lake, we find the following: Charles Steelberg, of McKeesport, caught a 4½ pound bigmouth, lure used, plug; James Hudleson, Wilkinsburg, scored with two largemouth on plug, one weighing 4½, the other 5½ pounds. Fine bass in any fisherman's language.



Mrs. Robert Frantz of Allentown with a splendid catch of largemouth bass and pickerel, scored in Peck's Pond, Pike County, during the present season. The pickerel ranged in length from 18 to 22½ inches and the bass from 14½ to 16½ inches.





Reynoldsdale Hatchery in Bedford County is one of the major fish farms operated by the Board of Fish Commissioners. It produces trout and warm water species of fishes. Shown here is the main hatchery building, with concrete nursery ponds in the foreground.



Worthwhile Ideal  
CONSERVATION EDUCATION  
in Every School.



# PENNSYLVANIA ANGLER



DECEMBER 1939

TEN CENTS



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## EDITORIAL

### Increased Panfish Production

REALIZING that a great percentage of our revenue is furnished by the panfish fishermen, we have established a program so that these sportsmen will be given as much consideration as those who fish for trout or bass.

To illustrate what this program means—our catfish production in 1937 was 472,694. This year to October 31st, we have stocked 858,200 of these fish. The bream (bluegill sunfish) production in 1937 was 784,135. This year to October 31st, we have stocked 2,251,000 of these fish. In addition to the above mentioned numbers which were stocked during 1939, we are holding approximately 320,000 catfish and 728,000 bream for distribution next fall.

This is a deviation from the former policy of the Fish Commission, as in the past it was necessary to stock practically all fish raised each year due to lack of holding facilities. Our expansion program has made available many large ponds in which we will hold these catfish and bream until next fall.

It is hoped that a great percentage of these fish will be of catchable size, and liberated in 1940, which will surely afford a lot of good fishing.

There are many thousands of boy fishermen under sixteen (16) years of age who are not required to have a fishing license, and we had these lads in mind when this program was established. In our humble opinion, nothing on this earth is finer than a boy going fishing with his Dad. Sitting along some lake or stream, enjoying each other's company—the father teaching the son all the different phases of sportsmanship, the boy teaching his father how to catch fish—very often is the beginning of a close companionship which could be formed in no other way.

We urge all fathers to take the boy along on the fishing trip as it pays big dividends!

As it is nearing the end of the year, I should like to meet every fisherman in this State personally and wish him a very merry Christmas, but as this is impossible, I must take this means to extend the Season's greetings, and wish you all a lot of tight lines in 1940.

  
Commissioner of Fisheries



# Pennsylvania Record Fish for 1939

By Alex P. Sweigart

**D**ISTINCTLY spotty and an off-year would seem to be a fitting description for the 1939 game fish season just concluded in Pennsylvania inland waters. That weather and water conditions contributed heavily in affecting the sport of the average fisherman there can be little reason to doubt. Chill weather and high water at the beginning of the trout season, tapering off to normal by late May, muddy water on many bass streams when that season opened, followed by mid-summer drought conditions reducing many streams to all-time record lows with exceedingly high water temperatures—these factors undoubtedly had their effect upon the fishing. During late winter and early spring, even sucker fishing appeared to be in the doldrums. The Juniata River, long regarded as perhaps the ace sucker stream in Pennsylvania, failed to produce catches of these bottom feeders with any consistency.

We cannot disregard the fact that drought has seriously impaired the carrying capacity of many of our trout waters and smaller warm water streams in recent years. It has been increasingly apparent that major streams, trout and warm water, maintaining a consistent flow throughout the year have continued to yield the cream of the fishing for trout and bass. Spring Creek, Penn's Creek and other larger trout streams relying in part or in whole upon their water supply from deep-seated limestone springs have held the trout fishing limelight from the angle of



Here's Leo Donahoe of Montrose with the largest eel ever reported to the ANGLER. Weighing 9 pounds 8 ounces, it measured 46 inches in length.

catches and good condition of fish that are taken. The Upper Allegheny River, the Upper Delaware River and the North Branch of the Susquehanna River have continued to rank on top as bass producers, along with Lake Gordon, Bedford County, and Stillwater Lake, Monroe County. On the credit side of extremely low water in many smaller bass streams has been an extensive and dense growth of beneficial vegetation, favorable to the increase in quantity of aquatic organisms upon which the bass and other game fish may feed.

Reports on catches in the record class did not equal in number those received last year, although some fine fish of the various species were taken.

## The Trout Season

Early season catches of brown and rainbow trout well up in the weight brackets were, as in other seasons, sparse during the opening week. It would seem that the old timers of these two introduced species are less prone to strike when water temperatures are low in early spring. Some nice brook trout were taken, however, right at the opening gong, particularly in Spring Creek, Centre County.

Catches in the brook trout division, from the angle of weight, were under those reported in 1938. A Warren County stream yielded one of the heaviest brookies recorded, a fish 15 $\frac{3}{8}$  inches in length and weighing one pound 6 ounces. Clarence Dove of Warren scored the catch early in the season. This fish was tied by a fine brook trout taken at Mountain Beach, Lycoming County, by Mrs. Myron Trumbower of Williamsport. Measuring 15 $\frac{3}{8}$  inches in length, Mrs. Trumbower's catch was heavier, length to weight considered, tipping the scales at one pound 6 ounces, the same weight as that of the Warren County brookie. Of the other fish in this division reported, a fine brook trout taken in Cove Creek, Bedford County, was well up in the ranking. It was caught by T. J.



Stillwater Lake in the Poconos yielded this 24-inch largemouth bass to Paul Kelly of Hamburg. Taken on a minnow, it weighed 6 pounds 2 ounces.

Lehman of Thomas Mills and measured 14 $\frac{3}{4}$  inches in length. No weight was given. Ben Shindler of Harrisburg caught a 16 $\frac{1}{2}$  inch brook trout in Yellow Breeches Creek, Cumberland County, that was tops in the contest conducted by the Harrisburg Hunters' and Anglers' Association. No weight was given, however.

Few rainbow trout in the record classification were reported. The top fish in this division was taken by Glenn Madigan of Ehrenfeld in Yellow Creek, Indiana County. It was 24 inches in length and tipped the scales at 4 pounds 3 ounces. In second place



Maldo Guecini, right, of Greentown, with the 8 pound walleye he caught in Lake Wallenpaupack this year.



Champion of the smallmouth division this year is Walter Sheaffer of Shiremanstown. He displays the 5 pound 2 ounce smallmouth bass taken on plug in Conodoguinet Creek, Cumberland County.





Introducing W. Charles Simpson, Cumberland, Md., with Pennsylvania's champion in the largemouth bass division this year. Note the splendid girth on this Lake Gordon bigmouth which tipped the scales at 7 pounds 5 ounces.





Ranking with the finest largemouth bass taken in the state this year was this 22-inch fish from Lake Wallenpaupack. Taken by Stanley Garrett of Wernersville, it had a girth of 18 inches and weighed 6 pounds 9 ounces.

were reported. Each year we expect famous Lake Gordon, with its magnificent supply of natural food in the form of crayfish, to yield largemouth bass of record proportions. This year proved no exception to the rule, and the honor of having taken the outstanding largemouth during 1939 goes to an ANGLER subscriber, W. Charles Simpson of Cumberland, Maryland. An expert bait caster, Charlie scored his catch on plug early in the morning on July 9. Quoting him:

"When I hooked him, he made for some water lilies and I thought he would get away sure then. I almost had him several times but he headed back for those lilies every time. An hour after I caught the 'big un', I was rousing a butcher out of bed to come down and weigh the bass. His scales read 7 pounds 5 ounces. Twelve hours later, the newspapermen got hold of the story and came down to weigh, measure and take a picture of the fish. (It seems as though the fish caused quite a sensation about 'these here parts'). The fish at this time had lost only one ounce, a fact that was probably due to keeping it on ice. I also caught some other fine bass this year in the lake, including one weighing 4 pounds 5 ounces, and a 22½-inch wall-eyed pike. All fish taken were caught on plugs, mostly by night casting.

"I think you publish a fine magazine and I never fail to read it thoroughly. It was through the ANGLER that I learned to catch these slow-to-hit largemouth bass that abound in Lake Gordon."

Runner-up in the largemouth division was a fine bass taken in Lake Wallenpaupack on plug by Stanley Garrett of Wernersville. This fish was 22 inches in length and boasted an extremely heavy girth of 18 inches, tipping the scales at 6 pounds 9 ounces. Stillwater Lake in Monroe County can generally be counted upon to produce some of the finest largemouth bass in Pennsylvania. Special Warden Mark Leiby of Hamburg reports the taking of a bigmouth weighing

6 pounds 2 ounces on a live minnow by Paul Kelly, Hamburg.

Several other fine fish of this species were reported. One of the grandest little plug casters and sportsmen in the state is Hartley Harrison, Jr., 10 years old, of Westtown, according to Clarence Miles of West Chester, who writes:

"Master Hartley caught a largemouth bass in Westtown Lake on plug that measured 23 inches in length and weighed 5 pounds 12 ounces. It had a girth of 15½ inches. Hartley is a real little fisherman and a loveable little chap. He sells worms at the lake."

Fishing Creek in Columbia County yielded a fine largemouth bass to Philip Knouse of Bloomsburg, R. D. 1, reports Warden Harry Carl of Elysburg. This bass weighed 5 pounds 8 ounces.

The grand old Conodoguinet Creek in Cumberland County produced the record smallmouth bass reported from Pennsylvania waters this year. There was a sure-enough flair of drama to this catch which just goes to prove you never know when you'll tie into a record breaking game fish of any species. While thousands of central Pennsylvania sportsmen were enjoying the splendid field day arranged by the Harrisburg Hunters' and Anglers' Association, the New Cumberland Sportsmen's Association and the Mechanicsburg Sportsmen's Protective Association, a bait caster placed his cast with a light lure nicely in the Conodoguinet not many miles away. Hardly had the plug struck the water than there came a swirl and a smashing strike. Walter Sheaffer of Shiremanstown had tied into what was to be the record smallmouth of the year. This fish, 21¼ inches in length, had a girth of 14½ inches and tipped the scales at 5 pounds 2 ounces. Displayed at the field day it created a real sensation.

A Susquehanna River smallmouth taken virtually in the shadows of the Capitol Dome by Lambert Miller of New Cumberland on a light lure pressed Sheaffer's catch closely for first place. Extremely heavy in girth, this 20¾-inch smallmouth tipped the scales at 5 pounds one ounce. Cedar Watkins of Har-



William McKee of Clearfield with his record calico bass taken in Black Moshannon dam.

risburg caught a fine smallmouth, 21¼ inches in length and weighing 4 pounds one ounce, on plug in the Susquehanna at the Rockville Bridge. A 19¾-inch smallmouth weighing 4 pounds 2 ounces was taken by Frank Long of Wormleysburg near the same location in the river. This fish weighed 4 pounds. This location also yielded a smallmouth 20¾ inches in length and weighing 4 pounds 8 ounces to H. W. Hoffman of Harrisburg. Roy Boyer of Harrisburg took a smallmouth in the river at Dauphin that weighed slightly better than four pounds.

Edinboro Lake in Erie County, famous for its muskellunge, produced an unexpected catch for Harry Gerber of Farrell when he



Tony Waaks of Shenandoah with the record walleyed pike for the year.





Thomas Terrace of Mt. Holly Springs with his record pickerel taken in Mountain Creek, Cumberland County.

landed a smallmouth bass 20½ inches in length, 14 inches in girth and weighing five pounds, to capture third place in the smallmouth ranking.

**Wall-Eyed Pike**

Topping all wall-eyed pike reported this year was a magnificent fish taken in the Upper Delaware River by Tony Waaks of Shenandoah. This fish measured 33 inches in



An artificial lured this 27½-inch, 7 pound 6 ounce brown trout to the strike for Len Donaldson of Warren.

**Angler Honor Roll**

**Brook Trout (Tie)**

Caught by Clarence Dove, Warren. Lure used and stream in which taken not given. Length 15¾ inches, girth not given, weight one pound 6 ounces.

Caught by Mrs. Myron Trumbower, Williamsport, at Mountain Beach, Lycoming County. Length 15¾ inches, girth not given, weight one pound 6 ounces. Lure used—worm.

**Rainbow Trout**

Caught by Glenn Madigan, Ehrenfeld, in Yellow Creek, Indiana County. Length 24 inches, girth not given, weight four pounds 3 ounces. Lure used not given.

**Brown Trout**

Caught by Paul Klopp, Stouchsburg, in Tulpehocken Creek, Berks County. Length 30 inches, girth not given, weight 8 pounds. Lure used—nighterawler.

**Largemouth Bass**

Caught by W. Charles Simpson, Cumberland, Md., in Lake Gordon, Bedford County. Length 23 inches, girth 17 inches, weight 7 pounds 5 ounces. Lure used—plug.

**Smallmouth Bass**

Caught by Walter Sheaffer, Shiremans-town, in Conodoguinet Creek, Cumberland County. Length 21¼ inches, girth 14½ inches, weight 5 pounds 2 ounces. Lure used—plug.

**Wall-Eyed Pike**

Caught by Tony Waaks, Shenandoah, in Upper Delaware River near New York State line. Length 33 inches, girth not given, weight 10 pounds. Lure used—minnow.

**Pickerel**

Caught by Thomas Terry, Mt. Holly Springs, in Mountain Creek, Cumberland County. Length 24½ inches, girth not given, weight four pounds 8 ounces. Lure used—spoon.

**Muskellunge**

Caught by R. C. Exley, Fairview in Lake LeBoeuf, Erie County. Length 47 inches, girth 20½ inches, weight 31 pounds. Lure used—sucker.

**Eel**

Caught by Leo E. Donahue, Montrose, in Little White Creek, Susquehanna County. Length 46 inches, girth not given, weight 9 pounds 8 ounces. Lure used—worm.

**Crappie**

Caught by Coleman Sheetz, Harrisburg, in Susquehanna River below Holtwood dam. Length 17½ inches, girth not given, weight 3 pounds 15½ ounces. Lure used—fly.

**Bullhead Catfish**

Caught by John Danner, Allentown, in Reading Reservoir dam, Berks County. Length 18 inches, girth not given, weight 4 pounds 2 ounces. Lure used—worm.

**Sucker**

Caught by Blair Thompson, North Warren, in Conewango Creek, Warren County. Length and girth not given, weight 4 pounds 12 ounces. Lure used—worm.

**Calico Bass**

Caught by William McKee, Clearfield, in Black Moshannon Lake, Centre County. Length 15 inches, girth 11½ inches, weight one pound 8 ounces. Lure used—minnow.

**Mississippi Catfish**

Caught by J. R. Kozar, Farrell, in the Shenango River, Mercer County. Length 39½ inches, girth not given, weight 27 pounds. Lure used not given.



This 28-inch, 7½ pound walleyed pike was taken by Thomas R. Middleton and John Riddle of Norristown in Lake Wallenpaupack this year. Middleton is holding the catch as Marion Riddle admires the big fish.

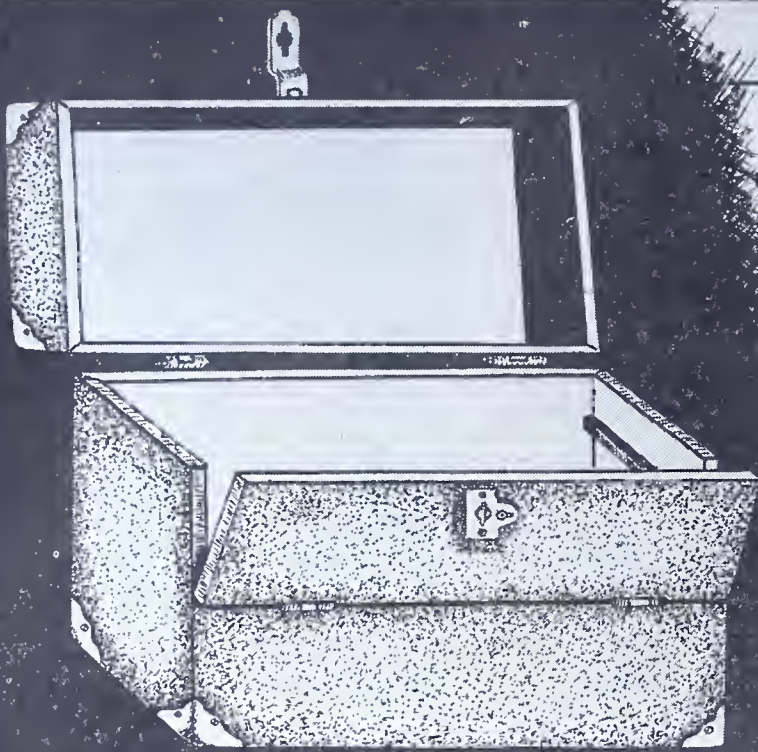
length and tipped the scales at 10 pounds, reports Warden Anthony Lech of Shenandoah. No girth was given. Lake Wallenpaupack usually ranks with top walleye waters. Maldo Guccini of Greentown caught a walleye in the lake that measured 32 inches and weighed 8 pounds.

Runner-up in the wall-eyed pike division was a fish taken by Peter Beaver of Hunting- (Continued on Page 18)

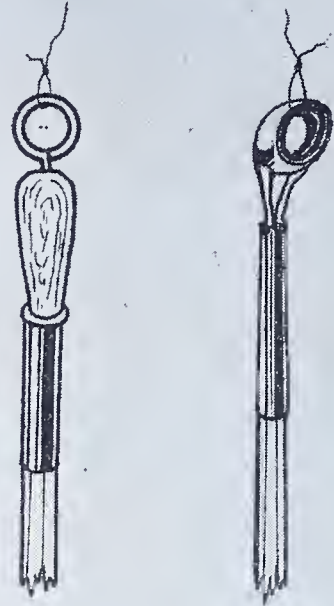


“Patty” Ellicker displays the 27-inch 6 pound 8 ounce brown trout taken by her father, Henry Ellicker of Coudersport in the Allegheny River.

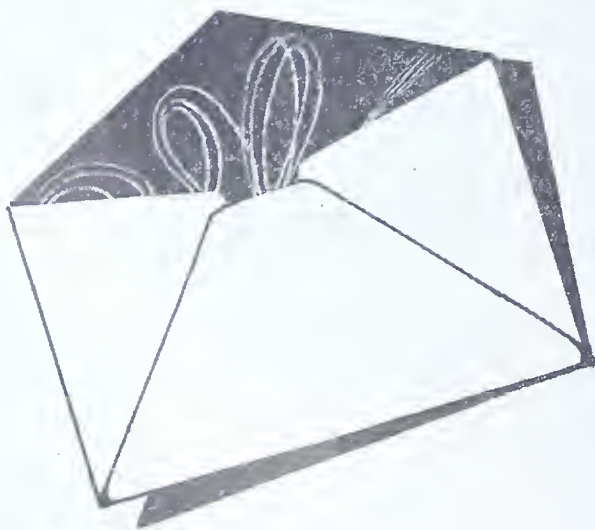
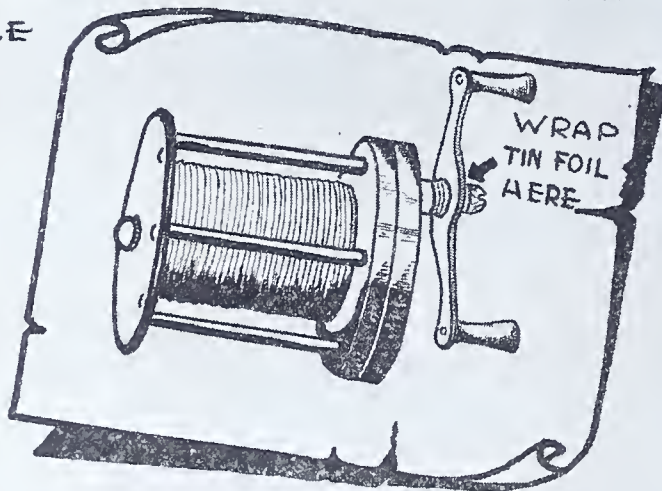
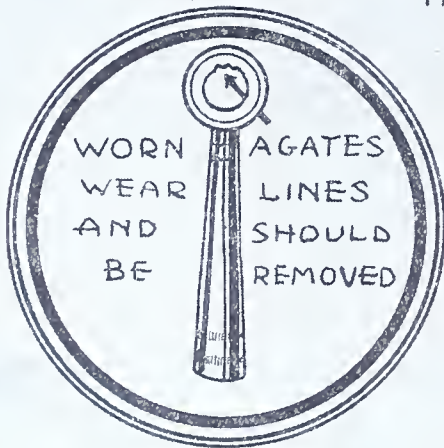
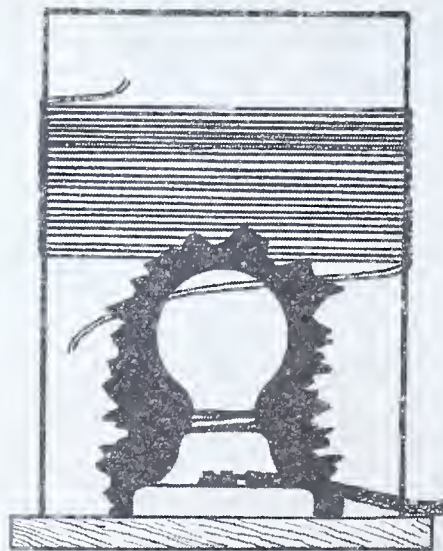




WRONG METHOD OF STORING ROD



PROPER METHOD OF STORING ROD

THE  
TACKLE  
KITBLACK LINED ENVELOPES  
PRESERVES LEADERS & TIPPETSQUICK LINE DRYER  
USING 10 WATT BULBMETHOD OF  
STORING FLIES



# WINTER TACKLE STORAGE

By C. L. PETERS

It has often been said that any tool or implement is only as good as the man using it. This rule applies equally well, whether that tool be used for carpentry, masonry, or some other occupation or hobby whereby much pleasure is derived.

Proper tackle storage is no problem if one has a real interest in his equipment and chooses to care for them wisely.

Rods, lines, reels, as well as the other accessories are too often left lie at the end of the season and forgotten until spring arrives and the urge to look the tackle over starts a general search for the mislaid paraphernalia.

Recently a friend took occasion to inform me that I look more like a prospector than a fisherman when we start on a fishing trip. This of course offered humorously and generously, but the fact is that I have acquired a tremendous amount of "necessities" and I have a place for every individual item. If equipment is kept in a certain place, cared for regularly, and repaired when necessary, one always knows where to find it when needed and can always feel assured that it is in first class condition and ready for service. It is an expensive proposition to purchase new tackle each season simply because we have been too careless to care for it properly.

I have an intimate friend who owns enough tackle to outfit a half dozen fishermen for several years fishing. I have seen this array of all sorts of tackle on several occasions and I am quite certain that it would take two weeks time to sort it out and get it into useable shape. An unkept jumble of lines, flies, leaders, hooks of divers description, and spinners thrown together in the drawers of an old dresser gives you a picture of the way this tackle is kept. At the end of each season more tackle is added to the collection. Each successive season more new tackle is purchased, most of which also finds its way to the collection that constitutes a rather expensive collection of souvenirs.

I take quite some pride in the care and preservation of my tackle and like to look at it with pride during the winter months in anticipation of the days of supreme pleasure that come with the first signs of spring.

In properly caring for tackle a small chest or cabinet as illustrated in the accompanying drawing is most useful if not a necessity, because here all the articles used for keeping tackle in first class shape can be found when required. Your tackle chest will hold small files, emory cloth, hook sharpening stone, tweezers, pliers, piano wire, oil can, graphite lubricant and what not. It eventually becomes a veritable storehouse of things that you will need in caring for your tackle and friend wife will be agreeably surprised at not finding odds and ends of tackle hidden in nooks and crannies about the house, much in the same manner as your favorite setter hides a bone to be dug up at some future time.

All this is to remind you that if you contemplate building or buying a tackle chest, be sure that it is ample large enough to

accommodate the ever increasing supply of tools as well as gadgets that are all too pleasing to the eye as they rest on the shelves of the tackle shop and eventually find their way to the angler's cabinet. Trays provided in such a chest will permit keeping plugs, hooks, tools, and such like separated and readily found. By adding a dropside door these trays can be slid out separately without the necessity of removing all of them.

## Reels

When reels are overhauled preparatory to their winter hibernation in the dark recesses of the tackle chest, they should be taken apart and the graphite lubricant removed by using gasoline and an old discarded tooth brush. Fine particles of dirt and bits of twigs, weed seeds and so on work their way into the gear case and often cause the reel to work stiff or appear to be gummed up. This is especially true in the case of the automatic reel.

I recently cleaned and overhauled an automatic reel for a fellow who had dropped the reel into the water and had forgotten the incident. Later when it refused to function perfectly he found himself condemning one of the best reels it was his privilege to ever own. A diagnosis disclosed that the spring had no lubricant applied and rust had formed. This with accumulation of dirt and grime between the coils of the spring kept it from operating. A thorough cleaning with gasoline and an application of graphite lubricant gave the spring an opportunity to function properly and incidentally gave the angler a chance to check up on his carelessness with the abuse of his tackle. It is a good idea to remove the grease from a reel at the end of each season and after thorough cleaning a light oil should be applied. The best oil I have found for reels is a light oil made expressly for electric hair clippers. The reason for its adaptability for this purpose is the fact that it will not gum under the most adverse conditions.

Due to the unsteady jerking of the reel handle during the reeling in process the thread whereby the handles are kept in place often become worn. It is very annoying to have this wobbling motion continuously but a reel need not be discarded for this reason as this is an easy matter to correct. Simply remove the handle and wrap a piece of tin foil around the worn thread. The handle is replaced and the single thickness of foil, compensating for the wear of the threads will tighten the union and cause a tight fit that will last indefinitely.

## Rods

The proper care of rods is a subject so broad in scope that entire books have been devoted to the subject, but with a bit of good judgement and fair usage, a good bamboo fly rod will give many seasons of service.

Several good rules to remember about bamboo rods are as follows:

Rod cases are designed to carry rods into and from fishing excursions but are not for winter storage. Rods should never be allowed to stand in cases over winter months. Mois-

ture sometimes collects in the aluminum cases and wreaks havoc with the open fibered wood. Plugs should be made to fit the ferrules and the rod hung up in a perpendicular position.

Never hang a rod up to remain for any length of time in a horizontal position as a permanent bend is sure to result.

Never apply shellac over varnish to re-finish a rod. Shellac should be used on a rod only to the raw wood as a base for the varnish and then used sparingly.

Never apply wax of any sort to a rod to preserve the varnish, unless you want to remove wax, varnish, wrapping and all in order to apply another coat of varnish. An oily cloth applied to the varnish occasionally will give the finish added life and can be easily removed if an additional coat of varnish is required.

## Lines

It should be needless to state that lines should never be stored unless they are thoroughly dry and free from moisture. Line dryers of divers descriptions can be purchased but the same results can be produced by wrapping the line loosely on a large cardboard mailing tube. A unique line dryer for quick results can be made by mounting a 10 watt bulb and receptacle on a board, and placing the cardboard tube over it. The small bulb produces enough heat to dry the line but not enough to harm the line. After lines are thoroughly dried they can be further preserved by stretching between two posts and applying a coat of warm boiled linseed oil. The preserving process can be discontinued at this point or if you wish a more complete finish can be had by an additional coat of two-thirds spar varnish and one-third turpentine. The linseed oil coating serves to fill the fibers and the varnish coating dries to a hard but elastic finish. A good grade of spar varnish should be used. When the varnish has dried the line should be polished down by applying rotten stone with a soft cloth. The rotten stone rubbed along the length of the line will remove heavy varnish spots and any dust that might accumulate while the varnish is still wet. A coating of talc will insure the line from becoming tacky while in winter storage.

Leaders are best preserved by keeping them in a dark place. Envelopes such as are used to keep sensitized photographic paper in are excellent for this purpose. Your nearest photographer will be glad to save some of these for you.

## Flies

Several seasons ago a fellow angler told me that his entire stock of flies had been ruined by moth. These flies were set aside in a cardboard box and the wet flies allowed to remain in a leather fly book. In spring when he decided it was time to look his flies over, he found the remaining skeletons of some of his choice creations.

The United States government recommends that paradichloride-benzene will absolutely kill moths and their larvae as well. Moths  
(Continued on Page 22)



# FAMILIARITY BREEDS CONTEMPT

By N. R. CASILLO

NEW CASTLE boasts a population of about 50,000, but, of that total I'd venture that less than one-half of one percent knows that bass can be caught in the stream that crosses and then parallels the main street right in the midst of the business section. Yes, catch bass in the shadows of its tallest buildings.

When I first came to New Castle, being interested in the gentle art, it wasn't long before I found and became a regular frequenter of the sporting goods store. There I met many kindred spirits who would rather talk fish and fishing than do anything else. There was one chap however, who was a distinct standout, his interests being equally divided between fishing and an irresistible hankering for the hooch, white mule, etc., that flowed so freely in those days. And believe me Bobby Burns (that was his name), could handle the several sleek bamboo casting rods that he owned like no one I've ever seen before or since.

Talk about your dyed-in-the-wool anglers, Bobby had such an unquenchable love for the sport that rather than pay his third divorced wife's monthly alimony he took the rap for ten days in the local bastille. This so he could make his final payment on a new split bamboo creation. Then after serving only two days of his sentence he skillfully sneaked out so that he could give the new rod a workout.

Well, one evening a group of six or eight of the hardest boiled fishermen in the county were in their accustomed haunt discussing the relative merits of various local bass streams. As was his wont, Bobby hung at the edge of the group avidly listening to every word but saying little himself. I can see him now, his slight figure slightly bent forward, his dark thin face as expressionless as an Indian's, his flashing eyes more than making up for that deadpan expression of his.

Finally the arguments settled on the Neshannock, the aforementioned stream that runs through town. One beefy chap was vehemently contending that the Neshannock didn't have bass in it; and that the Fish Commission should start stocking a few of them rather than concentrate on those so-and-so trout that nobody could catch.

It was easy to see that Bobby had lost patience. He slammed a cigarette butt on the floor and ground it underfoot.

"Listen," he opened in his peculiar hoarse croak, mindful of a crow with bronchitis. "You can catch bass in the Neshannock any time."

"Hell, you can!"

"Sure, I said any time," quietly repeated Bobby, unmindful of the big fellow's explosive question.

"I'm tellin' yuh Burns, there haint a bass in the whole crick. Why, I can remember when—." And he went on declaring that not once but on many occasions he had caught bass right alongside the New Castle Dry Goods Company's building. In fact he often got his limit before reaching the foot of the Croton Avenue hill (I might explain that that represents a quarter mile stretch in the very heart of the downtown section). "Yuh can't do it now," he concluded.

"I've got ten bucks that says it can be done," remarked Bobby almost meekly as he produced a wrinkled bill.

"You're on, you're on," came the chorus and not one but several bets were made. I sided with Burns. The time set for the trial was 10:30 that night. With the full moon and all I figured my money was as good as lost.

When the group augmented by many other individuals met at the appointed rendezvous a little after ten o'clock, it was easy to see that Bobby's chances of winning were prac-

tically nil. As one of his supporters so aptly expressed it, "he was feeling as high as a kite."

How he managed to rig up that little thoroughbred rod of his without demolishing the tip or something was just one of those things.

He had to be helped into the water but after getting set he was as steady as a coal scow, feeling his way over the slippery bottom seemingly as if he hadn't taken a drop from the flat quart bottle that glinted from a hip pocket.

However, this is not a yarn about Bobby Burns. I mention this episode merely so I can make some comparisons a little farther on in the story. But, suffice it to say that Burns, using a small sinking plug, yanked two bass from under the nearby bridge in front of the dry goods store, creeled three more before he reached the North Street bridge, less than a city square upstream, and had his limit of legal smallmouths long before he reached Croton Hill.

Of course the story of Burns' success traveled far and wide and got the fishermen out in force. But so far as most of them were concerned there couldn't have been an atom of truth in what was said about Bobby's phenomenal catch. The Neshannock is a capricious stream and produces only for those who know its vagaries.

One night some time later the wife and I were at home, she reading and I restlessly twirling my thumbs when I wasn't pacing the floor.

"What's eating you, anyway?" she finally asked in some exasperation.

"It's the call of the wild, I guess," I replied rather vaguely.

"So—well, you can tell your friends Bill Klee and Burr Rogers that they're not going to get you out tonight." Then without stopping for air she continued. "The idea of those two—those two playboys keeping you out three nights last week." Incidentally, I had not seen either one of them for more than two weeks, but you know how it is, I had to tell her something.

"No, it's not that," I muttered. "Well, you see, I'd liked to have gone up to the lake with the gang when they left last night. You know, this is the first day of July," I reminded.

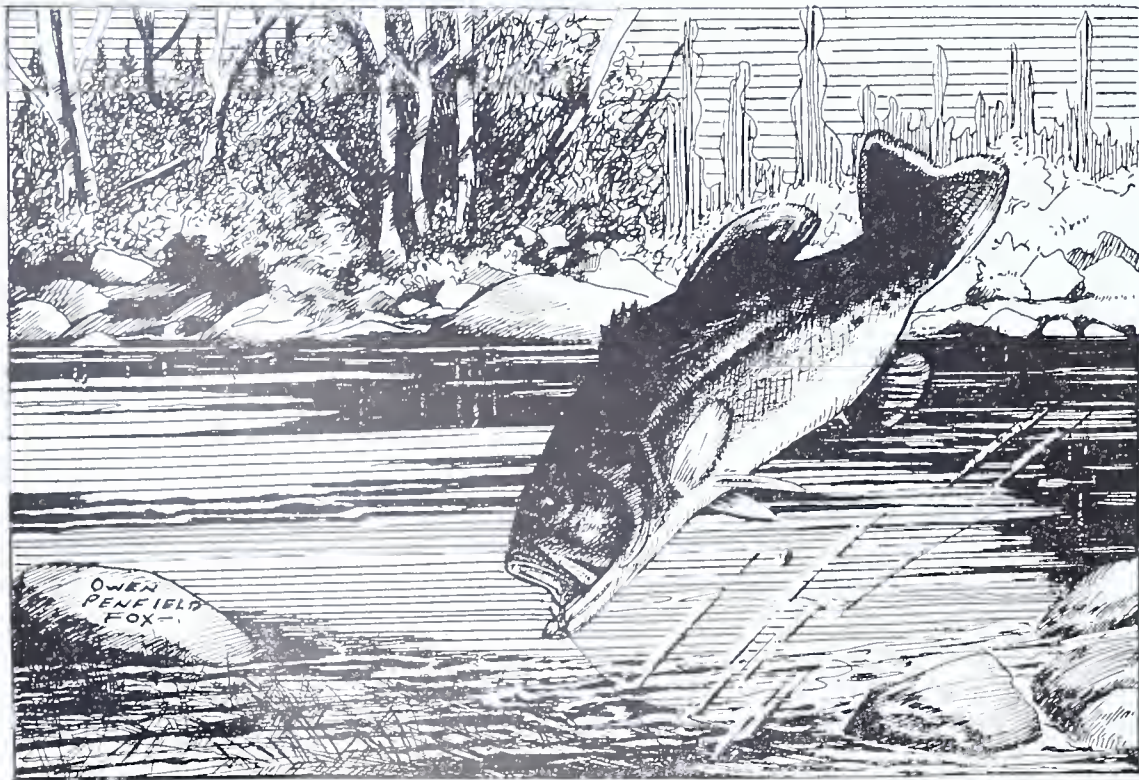
That silenced her for she knows that only serious interruptions can keep me from observing opening day. Then she had an idea and as I expected played right into my hands.

"If you couldn't get away to go to the lake why didn't you go out on the Neshannock after dinner this evening?"

"Oh, I didn't get the heebie jeebies until tonight. Say," I added innocent-like as if the idea had suddenly occurred to me. "It's not too late yet."

"10:30? I suppose not—and I'll go with you."

In less than ten minutes we were at the stream's edge above the old paper mill dam; a beautiful stretch consisting of pools, shallows and riffles unfolded before us, all flooded by the silver of the full moon.







The Neshannock at Neshannock Falls. Site of an old mill in the foreground.

A small luminous plug of the floating variety was my choice. After a backward glance at Irene, I tossed it toward the edge of some riffles near the opposite bank. Three cranks of the reel handle and I was fast to a fish.

"I've got one on," I announced. "Here take the rod and land him," I added, handing her the outfit so that she could feel the fervid pull of a fast-water smallmouth. In a few minutes she had the thoroughly exhausted twelve-inch fish in the landing net. In thirty minutes by the clock we were back home with a trio of fine bass, enough for a meal.

I relate these two episodes to show you that the Neshannock was a good bass stream. Now, I'll prove to you that it still is.

In some respects fishermen are a queer lot. If you don't think so then you might answer the following question. Why do anglers living handy to a good fishing spot nearly always resort to distant places where the fishing may not be as good? For example, I know fishermen whose regular stamping grounds are the justly famous waters of French Creek. Now, then, why do they periodically desert those prolific waters for inferior ones? Likewise why do the majority of anglers living handy to the Neshannock prefer to go up to French Creek or Conneaut Lake or even to the bay at Erie? Possibly because distance lends enchantment or that distant pastures look greener or something. Perhaps it explains my utter abandonment of the Neshannock for more than a decade.

For five or six years of that decade we regularly visited a well-known fishing spot. During the earlier years of our sojourns there we usually caught a satisfactory number of bass. Then their numbers began diminishing until last year we caught none.

While returning from our latest and most fruitless trip we crossed the Little Neshan-

nock (a branch of the main stream), just outside of New Wilmington.

"Bet we couldn't do any worse in the Neshannock," some one remarked as we rolled over the bridge.

"Say!" I cried, breaking the glum silence that followed that declaration. "If it's as good a stream as it was tuh—three years ago one could have lot of fun on the Neshannock."

"When did you last fish it?" asked Bill Klee.

"Three years ago," I lied.

"Did you get any fish?"

"The limit," I came back unblushingly.

Burr Rogers was at the wheel and I could see his ears twitching, and when Burr's ears twitch it's an unfailing sign that his piscatorial interest is aroused. "If you caught the limit three years ago then we should be able to pick up a few now," he reasoned.

The upshot of the whole affair was that before we reached town we had completed plans to fish the Neshannock on the afternoon of the following day.

A short distance above the covered bridge at Neshannock Falls there is as fine a length of riffles as any bass fisher would desire. Then, just before the swift water flattens itself out on the wide expanse of a magnificent pool it plunges through a narrow gap between flanks of sedges. To me it is a haunting spot because it was there that I was initiated into the realm of the short rod and wooden plugs. It was there among the sedges that I caught my first bass in Pennsylvania waters.

On the designated afternoon Bill, Burr and I were at the edge of the pool peering down into its pellucid depths for signs of bass.

"This is bad," observed Burr straightening up after a prolonged scrutiny. "There isn't a fish in the whole pool."

"You don't expect them to be down there looking up at you?" grunted Bill trying to cover up his own disappointment.

I said nothing as I went about the business of rigging up my outfit.

"Anyway, it's a great place to spend the afternoon," resignedly rejoined Burr as he pulled a reel and other paraphernalia from his jacket.

After assembling what stuff I needed I crossed over to the other side and began working my way through the sedges. My companions chose to still fish the pool, using soft craws for bait.

I had scarcely covered a hundred feet when an explosive yell from Bill nearly caused me to upset on the slippery rocks.

"What the deuce is the matter?" I yelled back.

"It's got it—I mean the crab. A fish has got my crab," came the excited answer.

"Aw, he's got a run," explained Burr.

The phase of live bait fishing for bass that appeals to me most is that period after the bass seizes the bait and makes its "run" preparatory to swallowing it. I believe that the action entailed is even more full of suspended excitement than that first frantic leap and bulldog shake of a hooked fish attempting to dislodge the hook. Those of you who have experienced it scarcely need to be reminded of it because it's one of those things that one never forgets.

When I got to a place where I had an obstructed view, the line was still leisurely flowing downstream while the reel handle slowly coasted along.

"How much line does he have out?" I asked.

"Around thirty or forty feet," replied Burr. Bill was too absorbed to give heed to anything but the task at hand.

At last the line ceased its slow progress and Bill thumbed the spool preparatory to setting the hook. Is there a live bait fisherman amongst you who doesn't like to give his advice as to what to do when this crucial moment is at hand? Burr and I said nothing. I nearly weakened but any articulate words that I may have uttered were lost in the groan that followed.

"Shall I give him the works?" asked Bill, turning his grinning face toward us.

"Gosh, yes!" we blurted out in unison.

After carefully reeling in what slack there was Bill gave an upward twist of his wrists and the fish was fast.

Swish! Before the fisherman had a chance to get set the fish was up out of the water dancing on its tail. A furious shake of its head sent what was left of that traitor crayfish flying in several directions. With it went a quantity of partially digested minnows. The hook held and the fish sounded for its submarine maneuvers.

"Did you see the size of that baby?" screeched Bill.

There was plenty of room and no snags in the pool so the fisherman gave the fish its head. After seesawing and shimmying all over the place it finally gave a convulsive shiver and turned over on its side. Without the twitch of a single fin it submitted to being dragged and netted.

"Why, this fish is dead," observed Bill as he worked the hook from the mouth of that splendid specimen. "Yes sir," he marveled,

(Continued on Page 21)



A good stretch of bass water on the Neshannock.



# BACKYARD FISHING

By ELWYN A. NELLIS

**F**OR years I have envied them. Ever since I have been able to both read and fish I have envied them their enticing trips into the faraway places where the bass are large and lusty and the pike are wily and strong.

There are others like me; anglers who have read of those overgrown sunfish in the more remote lakes and streams, and who have yearned to be among their more fortunate brothers who match wits and tackle against them.

It has suddenly dawned upon me, however, that while my angling brothers and I have been reading and envying, we have been having some pretty good fishing right in our own backyard. Actually, we have no need to travel far to make our piscatorial enjoyment complete.

The bass we catch may not be as large, but they are numerous and have "plenty of what it takes." They may not be of the tackle busting variety, but we can and do increase our enjoyment by the use of light tackle. It is no picnic to hook a four pound smallmouth bass on a five foot casting rod and a nine pound test line. If you think all you have to do is "horse him in," try it sometime. The use of a fly rod with light line and leader presents a still more ticklish problem.

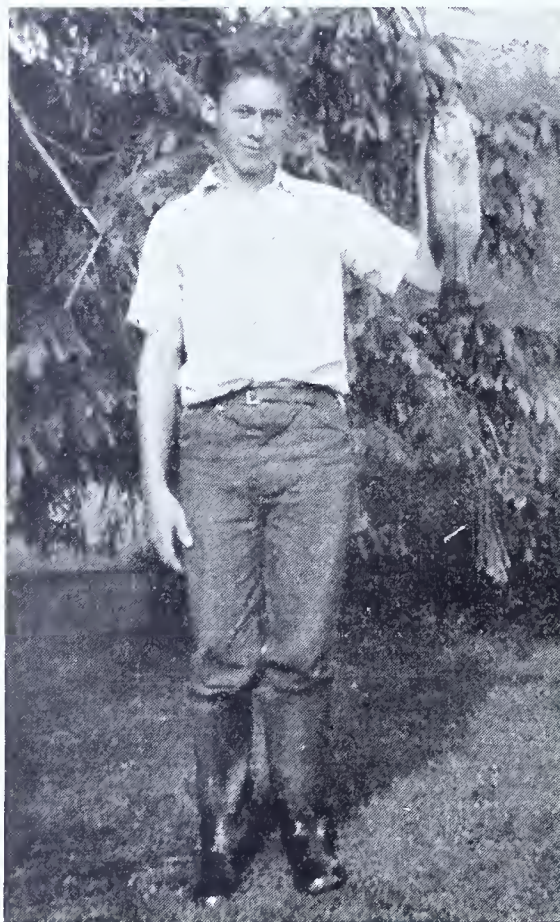
There is no greater fraternity in the world than the brotherhood of anglers. Bankers, lawyers, doctors, ministers, mechanics, farmers and laborers, treading different walks of life, may all be brothers under the fly dope. Many of the members of this mysterious cult have mastered the finer arts of angling and have never travelled more than fifty miles from home to get a back lash. They have never been, and probably never will go, to those faraway places in search of new bass to conquer. They are content with backyard fishing and it is high time that our own lakes and streams were given the place which is their just due.

No matter where you live, regardless of geographical location, there are many small lakes and streams around you which harbor both large and smallmouth bass. Even though constantly fished these backyard places are seldom praised.

You will probably say, "Yes, there are such places around here from which bass have been taken, but I have fished there a number of times with no results."

You probably have. But, unless something is radically wrong, bass may still be taken from there. The reason they did not strike on that which you had to offer was because the fish were used to much of the same thing from scores of other fishermen. You not only have to be wiser than the bass, but cleverer than the rest of the fishermen as well.

I have been told that many of those famous tackle busters in distant parts will strike on anything from a cigar band to a piece of lead pipe. That is not sport. To my way of thinking a great share of the fun in fishing is in being wiser than the fish, and fortunately, that is exactly what you have to be when fishing in the backyard. It is not merely a case of throwing your line into the water, but is a combination of luck in choosing the



Paul Gumaer with his prize bass. A largemouth, it weighed 3 pounds 7 ounces.

correct lure for the time and place and skill in handling the lure. You have to inveigle, entice, seduce and coerce Mr. Bass into your creel.

I do not claim to be a first class A-1 fisherman, but I do know that by following a few simple rules I am able to take bass from those "fished out" places. On the opening day of the season this year, two of us, using the same method, landed ten good-sized smallmouth bass and three pickerel at a lake where no other fish were taken during the entire day.

The method I use in catching bass in those supposedly "fished out" lakes is quite simple. In the first place I never use a lure, other than spinners, which does not correspond to the natural feed in the lake. The same applies to a stream although fish will be taken from both places on many occasions on a lure which does not correspond to the bass's natural food. For example, if crabs are not to be found in a lake, it is almost useless, I have found, to fish with anything which looks like a crab. A little observation along the shore will soon give you enough clues on what types of lures to use to keep you busy all day.

In the second place I use a five foot solid steel casting rod. It is light and limber, permitting the accurate use of light plugs and spinners. A nine pound test line further assists in the correct placement of those light lures. From a fish-eye view of the whole equipment, the lure is the most important

item. I never use over a half ounce plug or spinner. A light lure may be placed upon the water with a minimum of splash with a little practice. This is of vital importance when fishing those over-worked places and a little time spent in practice will greatly increase your take. A large, noisy splash tends to drive the bass away as he has come to learn that the accompanying dainty morsel is nothing more than a dangerous mouthful of wood and paint.

I have found that in putting your lure upon the water with little or no splash, you have greatly enhanced your chances of catching a fish on that cast. So long as he is not frightened by one "ker-splash" the more likely it is he will fall for your bit of fraud.

Finally, I try to make my lure, as it is darting through the water, act exactly like the natural feed it represents. I also vary its speed and direction as I retrieve it so as to render it more interesting in appearance to the fish.

For weeks prior to the opening of the season this year Paul Gumaer and I carefully laid our plans for our first pitched battle with those lusty fighters of the shore line. After many offers and counter-offers and rejections we eventually decided upon Blanding Lake, a small, spring-fed body of water in the northeastern part of the state. It is a natural, as far as bass and pickerel are concerned, with its irregular shore line, generous sprinkling of lily pads, pickerel grass, old logs and sunken stumps, and even though completely surrounded by private property, permission to fish may generally be obtained.

The weather could not be termed ideal for bass fishing. The moon, which was still shining when we pushed out onto the water at 4 A. M., was almost full and entirely too bright. The day was hot and hardly a cloud stirred in the sky.

With the first golden spears of the rising sun shooting over the tree-tops I met my first bass of the season. He weighed almost four pounds when finally netted and I swear he must have lost at least two pounds in the battle. I know I did. My fingers were all thumbs and he made matters no easier by standing on his tail on top of the water, angrily shaking his head at me. After what seemed eternity, but what was actually not more than fifteen minutes, he came to rest in Paul's net.

The lure I used was a half-ounce artificial beetle-bug. The body is made of lead to which a small spinner is attached at the head. A hook protrudes from the tail and is covered with feathers. This self-same lure may be purchased at almost any sporting goods store under various trade names. The one I was using happened to be red and white.

Nothing more happened from then until the sun was fairly high in the sky other than the constant splash of our plugs and the dip of our oars. This, however, happens at those far-off places, too. My four pounder was displayed several times with enviable pride to other fishermen now upon the lake.

(Continued on Page 20)





*Question: I am considering getting my son a balanced fly fishing outfit as a Christmas gift, but since it will be for a beginner, don't want to go too steep in price. Could you give me any suggestions along this line? How about a bait casting outfit?—J. S.*

*Answer:* That would make just as fine a Christmas gift as a dad could possibly want to give to his son who is wrapped up in fishing. Let's start with the fly rod. Rods for beginners should be procurable at from about \$7.50 to \$10.00. In selecting the rod, we'd suggest a length of 8½ feet and a weight of from 4 to 5 ounces. If the rod action is on the stiff side of medium, a level line made by any of the well-known American line manufacturers, in size C or D, depending upon the spring of the rod, should be suitable. Such a line should be procurable at from \$2.00 to \$4.00. Complementing this outfit should be a good single action reel, not too light and selected with a view to balance aid as well as a harbor for the line. A suitable reel of this type should be purchasable at around the \$2.00 mark. When it comes to selecting a bait casting outfit for the beginner, the rod price range should be around the \$7.50 mark. Taking into consideration the wear and tear to which such a rod will in all probability be put, the best answer in this connection we believe to be in tubular steel models. Several tubular steel rods with offset reel handles now on the market are available in 5½ foot length and, frankly, a rod of these specifications should last for years. Right now a number of the big tackle companies have good quadruple multiplying casting reels on the market priced from \$5.00 to \$10.00. The line selected should be of good American make, water-proofed, either hard braided or soft braided and test from 12 to 15 pounds. Cheap line may be used for filler. The cost of a good quality American line in the tests mentioned is from around \$1.15 to \$1.40 for a 50-yard spool.

*Question: During the past season, while fishing a light lure for bass, I had a strike from a fish that, when it swirled, I judge would have weighed five pounds. This big smallmouth didn't break the line but tore loose immediately after hooking. On another occasion, at nearly the*

*same location, another fish that I believe was the same struck, I froze on the reel, and the next instant it went away with the plug. Several of my friends who have taken up plug casting report similar experiences and we wonder just what would be good tactics in handling big bass during the first second or two after the strike?—R. D. L.*

*Answer:* Bitter experience and the best recollection of days astream qualify us to string along with the boys who lose the big ones in that split second following the strike. Two years ago, on the Conodoguinet, this scribe lost the biggest smallmouth he had ever had hooked and the reason was just plain "freezing." We had fished that evening over about a mile of water with light lures, garnering nary a strike. Finally, just as dusk had fallen, came a terrific strike in a deep ledge channel. A mighty smallmouth, 24 inches in length if it was an inch, swirled on the surface, its broad tail slapping in its turn to make off after the strike. No bones about it, we were petrified to the extent that our fingers froze to the reel handle and away went the bass with that plug. Since that time, we've reached the conclusion that trying to figure out just what an individual big fish and an individual fisherman may do in one of these crucial split moments after the strike has a whale of a lot of "ifs" attached. Heavy girthed fish such as the bass, when they pass the four pounder stage, pack tremendous power in their strike and first subsequent lunges to break away. With that thought in mind, it is a good idea to have a light grip on the reel handles on the retrieve so that when the strike comes from one of these old sockdolagers, the handles may be loosed from the fingers without too much strain being placed on a light test line. Thumbing the reel on the first two or three runs of the bass and letting it have its head while still retaining pressure on the fish in the early moments of the battle may go a long way toward eventual wearing down and taking of the prize. Here, too, a light casting rod with a fast tip action plays an important part, and one of the finest masters we have observed at the art of wearing down big fish in these early moments of the battle is Charley Fox.

## GORDON BASS

Plug fishing for the famous largemouth bass of Lake Gordon in Bedford County was well up to standard this year, according to reports received from Warden Harry Moore of Bedford. A largemouth measuring 19 inches in length and weighing 3½ pounds was taken on plug by R. D. Hepburn of Johnstown. James Hevis of Wilkinsburg caught a three pounder on plug. Right with

top rank fish taken on plug in the lake was a 7 pound largemouth caught by Nate Crum of Johnstown.

W. Charles Simpson, who landed the 1939 record bigmouth in the lake, made a checkup on weights of fish he caught this season. A bass 13½ inches weighed one pound 6 ounces; one 16 inches, 2 pounds 5 ounces; one 17 inches, 2 pounds 10 ounces, and one 20½ inches, 4 pounds 5 ounces.



I shure hed a gude time last munth, mixin' sum squerrel shootin' an' fishin' fer pike nigh onter the end o' the seezun. This yere we hed a gude menny gray squerrels in the hickories along the crick an' it wuzn't no trubbel at all fer ter carry along the cain pole an' spoon whilst I wuz headin' fer the ridge medders. These medders hez sum hickories in 'em an' the nut crop seemed better then in the ridge fer sum reezun. Ennyways, I'd let the pole along the bank, knock over sum squerrels an' then cum back an' do sum fishin', mostly in the ledge hole back o' Jed Turner's place. Ketched sum rite pert pike, an' hed one nigh onter 23 inches long. A feller cain't want a better time 'n thet, huntin' and' fishin' both.

Afore we know it now, Chrismus will be cumin' along, an' up to our house, we shure air lokin' ahed ter seein' the grand children agin. The boy's oldest an' thet fishin' outfit I got fer him last yere shure did go ter his hart. At thet, I cain't tell which o' them yunguns, him er his yunger sister likes ter fish better. Rite now, I reckon the best thing I cude git ter make her happy wude be a fishin' outfit like I got the boy last yere, an' I ordered it down ter the store last nite. Seems like girls nowadays is jest ez wrapped up in fishin' an' gettin' outdoors ez boys is an' it shure will do 'em all a world o' gude.

Speakin' erbout kids likin' fishin' an' huntin', I wunder sumtimes ef us older fishers an' hunters is doin' all we kin ter permote gude sportsmanship amungst them thet will foller us sumday. Uther years I seen enny number o' boys along the big crick afishin' thet didn't know a sunny frum a cattie, but this here seezun, I wuz mitey happy ter see more dads an' their kids fishin' tergether. Ef there's a better way fer a dad ter get ter know his son then along one o' our streams, I ain't never heered o' it.

Seemes ter me, the thing we need, now thet our fishin' an' huntin' is drawin' thousands more folks outdoors every yere is more edycation. Thet goes pertickaler fer yunguns thet is jest takin' up fishin' but it cain't hurt none o' us older folks enny neither.

Here's wishin' all you reeders a mitey merry Chrismus an' grate fishin' in the New Yere.



# THE 1939 N. A. A. C. C. TOURNAMENT

By "DOC." HOWE

**N**ESTLED amidst towering trees, luxuriant shrubbery, open-eyed flowers and the greenest of grass in Golden Gate Park, San Francisco, is the inviting Golden Gate Club House and Casting Pool. The 1939 National Association of Scientific Angling Clubs Tournament held there August 23 thru 27 will long be remembered by participants and spectators alike. Here it was that champions cast as only first-flight men can . . . only to have super-champions smack records and accomplish the almost impossible.

The All-Round Championship, most coveted of titles, covering all events, proved to be a battle until the last man in the last event had finished. "Sib" Liotta of Cleveland has held this for the 1937 and 1938 seasons. This year Milton J. Kraft, San Francisco, had the reward of having his name emblazoned in the Halls of Fame among anglers as 1939 All-Round Champion. Tony Accetta won the Professional All-Round.

The morning of August 23 saw the opening event: the spectacular and thrilling Distance Fly. A gusty sidewind with no regard for reputations made it tough with a capital "T". Al Foos who has watched the fly-flickers for many a year remarked that it was the best exhibition of flycasting he had ever seen. "Sib" Liotta in the very last casting position won out to retain his 1938 Distance-Fly Championship by bettering "Red" Loskot's 148-foot average with 158.8. Jack Sparks, Waco, Texas, was third with 142.4. Fourth, Lou Guerin with 142. Milt Kraft, fifth, with 140.8 and Herman Hittenberger, sixth, with 139.4.

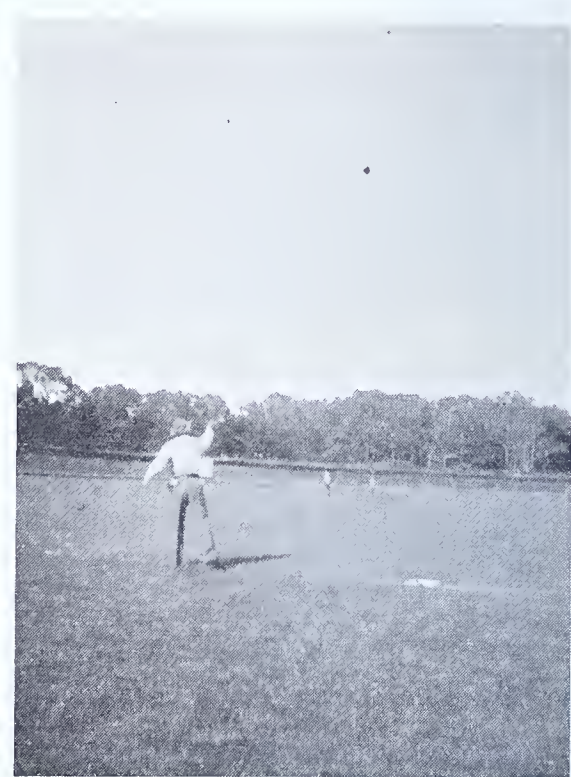
The second event, the Salmon Fly, took place in the afternoon under still more trying conditions. The record for the longest single cast was broken by Dick Miller with 186 feet. He was tied for first place by Milt Kraft, their average being 175.8; third, Phil Miranville, 174.8; fourth, Ernest Liotta, Jr., 174.4; fifth, Lou F. Guerin, 173.4 and sixth, Herman Hittenberger, 170.8.

This is the first time that a tie for first place in Salmon Fly ever occurred in a National. A shoot-off was impossible as a sudden sidewind whipped a hard backcast fly directly into Kraft's eye. Under the circumstances it was voted to strike off two first place medals in this particular case. A departure from rules approved by all.

Event number three, the 3/8-ounce distance plug, took place August 24 on the nearby Polo Field. The heretofore absent California sun came out to see the world's records take a terrific beating. The former record of 304 feet held by Lee Sens, Baltimore, and the longest single-cast record of 323 feet by "Sib" Liotta, were made at Buffalo in 1937. Walter Willman increased the long-cast record to 355.6 and the average to 348. That progress may be noted in this fascinating game, record breakers, their average score and the amount they broke the record, are listed.

	Average	Broke record by
1. Walter Willman .....	348	44 feet
2. Lee Sens .....	333.8	29.8 "
3. W. S. Howe.....	329	25 "
4. R. G. Miller.....	327	23 "
5. Waldo Ek .....	321.8	17.8 "
6. C. H. Hittenberger....	321.2	17.2 "
7. Henry Fujita .....	320.6	16.6 "
8. Tony Accetta .....	320.4	16.4 "
9. Milton J. Kraft.....	314	10 "
10. Herman Hittenberger..	311	7 "
11. A. C. Kellogg.....	310.4	6.4 "

Event number four, the 5/8-ounce distance plug, again was characterized by crumbling world's records. Lee Sens in 1938 at Columbus, Ohio, set new records with a 348 foot average and a 396 foot long cast. Now he stepped the long cast higher by 21 feet, 417 feet is considerable mileage for one 5/8-ounce plug. Carl H. Hittenberger, borrowing a reel from Al Foss, took a few minutes away from his duties as General Chairman of the Tour-



Lee Sens as he completed his 417 foot cast.

namment to show the boys that he could no longer be classed as a "Dark Horse".

	Average	Broke record by
1. C. H. Hittenberger....	397.4	13.4 feet
2. Lee Sens .....	391	7 "
3. Dick Miller .....	387	3 "
4. A. C. Kellogg.....	382.2	
5. Walter Willman .....	371.4	
6. Herman Hittenberger..	370.2	
7. Waldo Ek .....	367.6	
8. Henry Fujita .....	359.10	
9. W. S. Howe.....	355.8	
10. W. C. Block.....	353.8	
11. Tony Accetta .....	346.8	

It is interesting to note in these two distance lure events that the majority of the record breaking reels had spools revolving on the shaft.

On August 25, delegates from all over the United States devoted the day to the annual business meeting. Several highlights may be mentioned. The name was changed to the National Association of Angling and Casting Clubs, doing away with the word Scientific. The weight restrictions, on all fly rods 9 1/2 feet and under were removed; this permits any fisherman to engage in tournament casting without buying new equipment. The line in the 5/8-ounce Accuracy event was moved from 4 1/2 pound test to 9 pound test, with no restrictions on rods or reels. Either St. Louis or Baltimore will be awarded the 1940 Tournament. Officers elected for the ensuing year are: President, Dr. C. K. Higgins, St. Louis, Missouri; First Vice-President, C. H. Hittenberger, San Francisco, California; Second Vice-President, Lee Sens, Baltimore, Maryland; Third Vice-President, Roscoe Reamer, Kansas City, Missouri; Fourth Vice-



The Distance Fly Event — Dick Miller at bat.



President, Dr. W. S. Howe, St. Petersburg, Florida; Treasurer, C. W. Ward, Pittsburgh, Pennsylvania; Secretary, Dr. Robert P. Merrill, 2149½ N. High St., Columbus, Ohio.

On August 26, Event number 5, Accuracy Dry Fly, the wind had potent gusts and even bothered past masters like Jules Cuenin, Henry Fujita, Eddie Bradden, E. C. Powell, Milt Kraft and many others. Therefore, too much credit cannot be given to "Chummy" Keating who came thru with a demerit of only two points. The results:

1. Ralph Keating .....	98
2. Jimmy Green .....	97
3. Lou Lionvale .....	96
4. E. E. Cavanaugh .....	96
5. A. Nana .....	96
6. Jules Cuenin .....	95
7. A. G. Hedberg .....	95
8. Ben Robison .....	95
9. Lee Sens .....	95
10. Henry Fujita .....	95

Event number 6, the Accuracy Wet Fly, immediately followed and was likewise influenced by the fathomless California breeze.

1. M. L. Sulser .....	99
2. Phil Mironvalle .....	99
3. Harold Lyons .....	99
4. Tony Accetta .....	98
5. Carroll Thorne, Jr. ....	98
6. Charles Krause .....	98
7. H. L. Smith .....	98
8. Jimmy Price .....	98
9. Jimmy Green .....	98

The three way tie for first place was cast off and the rest drew for position.

On August 27, after the ¾-ounce Accuracy Bait, many of the experts looked for solace in the alibi room. "Sib" Liotta took this event in a walk.

1. Ernest Liotta, Jr. ....	98
2. Cy Wheeler .....	96
3. Roscoe Reamer .....	94
4. Russell Smith .....	93
5. A. C. Kellogg .....	93



The Golden Gate Pools, east end of the Distance Fly Pool and, to the left, Accuracy Pool.

6. Don Lenhardt .....	93
7. Carroll Thorne, Jr. ....	93
8. Eddie Braddon .....	92
9. Lou Lionvale .....	91
10. Milton Kraft .....	91
11. J. H. Wine .....	91
Tony Accetta, Pro. ....	97

In the final and last event, the ⅝ths Accuracy Bait, W. C. Block, Portland, Oregon, topped the list with a 97. Four men, Carroll Thorne, Jr., Milt Kraft, "Whitey" Wine, and Eddie Braddon, tied for second. The positions drawn were:

1. W. C. (Bill) Block .....	97
2. Carroll Thorne, Jr. ....	96
3. M. J. (Deacon) Kraft .....	96
4. J. H. Wine .....	96
5. Eddie Braddon .....	96
6. Walter Willman .....	95
7. Cy Wheeler .....	95
8. Henry Fujita .....	95
9. A. C. Kellogg .....	94
10. Jules Cuenin .....	94
11. Harvey Rapp .....	94

The Ladies ⅝ths Accuracy, won by Patricia Krause, furnished some suspended heart thumps when the wind tried to wrest the rod from "Pat's" hands on her last cast. True to predictions, she came thru in the clutch.

1. "Pat" Krause .....	95
2. Mrs. Willman .....	92
3. Mrs. U. J. Bauer .....	89
4. Dorothy Oxley .....	87
5. Mrs. E. Halvorsen .....	86
6. Isabelle Betten .....	86
7. Mrs. G. Harlness .....	83
8. Iva Patterson .....	82

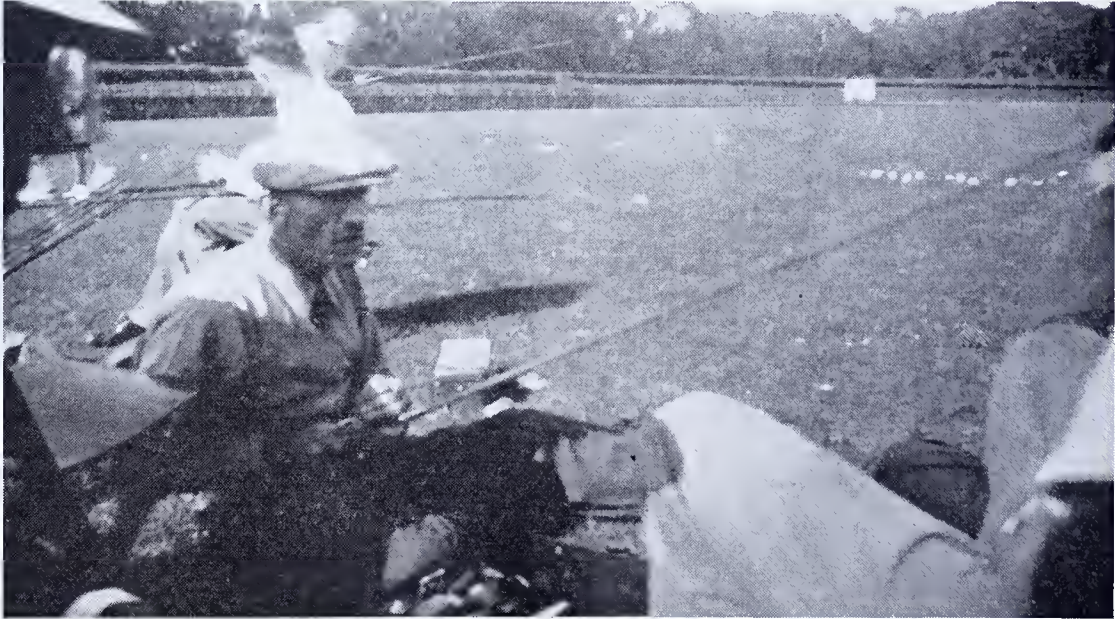
Watching the Juvenile ⅝ths Accuracy gave some of the oldsters food for thought. These youngsters put on a masterful exhibition that was a pleasure to watch.

1. Bill Henry .....	96
2. Elmer Crusey .....	95
3. Jimmy Price .....	94
4. Henry Fujita, Jr. ....	93
5. Don Walters .....	92
6. U. Bauer, Jr. ....	90
7. Richard Fujita .....	86
8. John Bauer .....	82
9. Miss Joan Conner .....	55

Before admitting that the modern social order and educational system are superior to the old, we shall wait for them to turn out better men and women than our grandfathers and grandmothers—and better educated ones.

CORRECTION

To you Lycoming Waltonians, the ANGLER desires to make the following correction relative to an error which occurred in the October issue of this magazine. We inadvertently listed your major stream, the Loyalsock as being in Clinton County, whereas the designation as to its location should have been Lycoming and Sullivan Counties.



C. H. Hittenberger, the 1939 ⅝-ounce Distance Bait Champion, keeping an eye on Lee Sens during the event.



# BROWNIES OF THE BUSHKILL

By FRANKLIN B. IEHLE

**T**HE Bushkill which I am to tell about is not one of the creeks of the same name that course their way through the wilds of Pike and Monroe Counties of Pennsylvania. Rather it is the Bushkill which has its beginning and ending in Northampton County. Rising in the foothills of the south side of the Blue Mountains, it winds its way in a southeasterly direction thru a farming and industrial section for a distance of about fifteen miles and flows into the Delaware River at the city of Easton. The last three miles has several dams which supply water power for several industries which border the creek, just before it enters the city of Easton. As a trout stream it looks anything but. My first experience fishing it was prompted by the report that it had been stocked by the state, but even then it being so near the city of Easton I thought it would only be a question of a few weeks when it would be fished out. Until I met up with Ed the creek afforded me more or less an opportunity to get away from home on a Saturday afternoon, especially in the early part of the season when garden hackle seemed to be the most suitable and certain method of bringing home a trout or two.

One Fourth of July morning found me sitting on the bank of the creek under a large willow tree watching a couple fishermen heaving large gobs of night crawlers out into the middle of one of the dams. You have often heard of large brownies taken in just such a manner, and the Bushkill had quite a reputation for some large brown trout being taken by this type of fishing. It was nearing the middle of the day when sane trout fishermen should be off the creek, but

the news items that appeared in the local paper from time to time about the big ones that were caught in the Bushkill on bait, no doubt was the incentive for these anglers to stick it out. Nearby also was another fisherman who made several remarks to me about the hatch of midges that were on, and he guessed it was useless to try to get the trout to take anything else. The word midges to me meant only something that was very small, but on the Bushkill it has a different meaning. When this particular type of insect is on the creek, the trout feed on it with voraciousness. This minute insect comes floating down on the surface of the water in patches early in the morning and the trout gorge themselves with it while ignoring other insects, that might be on the water at the same time. Upon questioning this likeable chap seemed to have quite a knowledge of the insect life on the creek. Ed, as this friendly angler will be known in this story, had such a collection of flies about his person that he reminded me of a magician. Out of every pocket of his fishing jacket he seemed to bring forth a container of some kind, each of which held an assortment of flies. During the course of our conversation Ed asked me if I had ever seen the Drake come on the Bushkill. I replied in the negative. Then and there I was let in on the secret of catching with flies, the large brownies which inhabit the dams in the creek.

Most of the trout are caught in the lower three miles of the creek. There are a number of large springs which feed the lower part and the water temperature in places is lower than the upper branches of the creek. This no doubt accounts for the fact that there are very few if any trout in the creek above the iron bridge at Tatamy. I have been informed that the Bushkill had always contained native trout before the stocking of trout and it has been my pleasure to hear some of the old timers tell about the wonderful fishing they enjoyed on the Bushkill. I doubt very much if the creek now contains any but stocked trout.

To get back to my story about Ed and the drake fly, before leaving for home, which I should have done two hours earlier, but, then I would not have met Ed. I made an engagement to pick him up at his home on the following evening at about five thirty. In answer to my push on the door bell a head popped out of an upper window and called, "Come on up." I found Ed in his room working over his fly tying vise. Perhaps I forgot to mention that Ed ties all his own flies. "Sit down," he said, "I'll only be a minute or two, and much to my amazement, not to mention my education, I saw Ed turn out four beautiful imitations of the green and grey drake. Handing one of each to me he said, "I know where there are two beautiful brownies that have been feeding in the same spot for a couple of nights, and tonight we are going to take them." To me that sounded rather too certain, but Ed seemed so matter of fact when he said it that I seemed to have faith in those two creations of feathers and silk which I was holding in the hollow of my hand.

The next ten minutes found us at the Bushkill. It was still two and a half hours until dusk and after putting our tackle together we walked along the creek looking for signs of rising trout. Not a ripple did we see, but Ed assured me that we had plenty of time as the big ones did not feed much before dusk, just as the drake was emerging out of the water. To have a rod in my hands along a stream and not using it seemed a wanton waste of time. I suggested we try some wet flies. After an hour or two of this without any success, Ed casually remarked, I guess they are waiting for the drake to come on. After which remark we changed from wet to dry fly leaders, on the terminal end of which we tied one of Ed's new drakes. Now he said, "I will show you where those two brownies feed, but you will have to be very careful in wading out to them. As they happened to be on the opposite side of the creek and close to the overhanging bank, Ed suggested that we wade out before dusk gathered and stand in the one position until the drake came on and the trout began to feed on them. To me at the time this appeared like a lot of unnecessary preparations, but I have never regretted it and many times since it has been the means of my taking some fine trout. Ed placed himself about forty yards up the creek and just around a bend which made it difficult to see him in the fast fading light. I did not have to wait but a few minutes when I discerned the first gossamer like drake raise from the surface of the creek and followed by more in quick succession. It was while wondering about the wonders of nature which caused this delicate insect to be born in such an interesting manner and



A fine stretch of brown trout water on the Bushkill below the bridge near Bushkill Park.



At the head of a nice pool on the Bushkill Creek above the scenic railway at Bushkill Park.



to live such a brief life, that I heard the gulp of a feeding fish. And as I looked in the direction of the place where Ed told me the trout had been feeding I saw the widening rings on the surface of the water caused by a feeding fish. An interval of a minute or two passed before the trout again came to the surface and sucked in some form of insect life. I was now getting anxious to drop my fly over the spot as it was getting dark fast and I was afraid that I would misjudge my cast in the dark and get hung up in a tree on my back cast or have my fly light in the high weeds on the bank above the trout. Not being able to wait any longer I made several false casts before dropping my fly about five feet ahead of the feeding trout, which was coming to the surface at regular intervals. I could just about see where the ripples were come from and I could hear the gulp or sucking sound of the trout as he picked off the surface a drake that has spent its short life and had fallen on the surface of the water. I could see them drifting by now in great numbers with signs of a little life still left in their frail bodies. I could not see my fly as it lighted on the water, but I did hear the sucking sound of the feeding trout. At the time I thought my fly would be drifting over where I judged the trout was. Raising my rod sharply I nearly had it torn from my hand for I was fast to a trout I knew was not just "legal size". "I got him," I yelled to Ed, but no sound from his direction. How many times that trout broke water I have no way of telling as it was now too dark even to see either bank of the creek. After letting him play on the end of the rod for a few minutes I reached for my net. Right now let me warn you never to go fishing at night without flash light. However, luck was with me and I managed to get the trout in the net after having it dive between and around my legs a number of times when I wondered if I ever would net it, or whether it would be just another "the one that got away." The water was all but an inch from my boot tops and it was with the utmost care that I was able to work my way back to the bank without slipping and stumbling over the big rocks to the bottom of the creek.

As I pulled my foot out of the creek for the last step upon the bank, I was accosted with these words, "what will he go?" There stood Ed although I could not see his face, but I knew he was grinning. Switching on his flash light he peered into my creel and said, "I thought he would be a bigger fish than that, mine is sixteen inches, yours is only about an inch longer."

Another night Ed and I were fishing this same stretch of water; neither one had any success in netting any trout, although we both missed some nice rises to our drakes. Dusk had come on some time ago and the darkness of the night had began to settle. I had decided I would quit for the night and it was while feeling my way along the path beside the creek when I heard the splash of something in the water on the opposite side of the creek, and directly under an overhanging limb of a large tree. Not knowing whether it might be a muskrat or a large brown trout, I stopped and listened for the sound again. The next time I heard the unmistakable sound of a feeding fish. Carefully wading out far enough in the creek to avoid getting hung up in the trees, (while



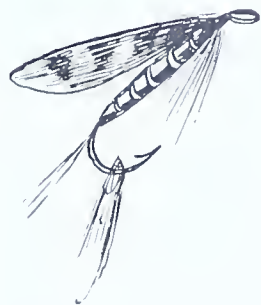
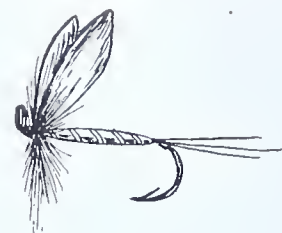
The tail of a nice pool on the Bushkill Creek below the scenic railway at Bushkill Park.

I could not see them I knew where the trees were located), I dropped the fly, (a spent form of the drake) above the overhanging limb. The current being rather slow on this particular stretch of the creek, it took the fly about one minute to float over the spot where I thought the trout was feeding. Again I heard the sound of a splash and I quickly raised my rod, hoping that the trout had taken my fly. I felt the sudden jerk of my rod and I knew I was fast to a nice trout. I could not understand why this trout did not break water, but kept darting around in the creek and several times seemed to sulk on the bottom. This time I had my flash light, and holding it in my left hand tight against the handle of the net, I could direct the rays of light while I was trying to net the trout. I had taken up on my line and was letting the trout play against the spring of the rod, but at times I had to lower the rod for fear of damage to the rod tip. At times I could catch a glimpse of the trout when the rays from my flash light shone on the water. I could see that it was a pretty nice fish. The adage, "All things come to those who wait," was working for me that

night and I finally succeeded in getting the trout in the net. Hooking the flash light to my belt so that the light would shine in front of me I waded to the bank. Reaching in the net I saw that the trout did not have the fly in his mouth or jaw, and I thanked my lucky stars that I netted him just in time. It was a brown trout of fifteen inches, not such a big fish, but it gave me more fight underwater than any trout I could remember. When I untied my leader preparing to stop for the night I noticed that it was caught in something in back of me. Following the leader with my hand it led to my creel. I reached in to unhook the fly and to my surprise I found it hooked in the caudal fin of the trout. That of course was the answer to the trout not breaking water and putting up such a stubborn fight. I have been told that this happens when the trout tries to slap the fly under the surface of the water with his tail. As this occurred in the dark I could not tell just how it did happen, but I do know that that trout was doing a lot of slapping the water while feeding.

(Continued on Page 23)





# SIX OLD FLIES

by

## A. G. SHIMMEL



A. G. Shimmel  
1929

THE birch logs in the fireplace cast a ruddy warmth into the room and make a grotesque play of lights and shadows on the wall. The smoke from my pipe curls slowly toward the ceiling. Sleet rattles against the windowpanes and the trees outside groan and crack beneath their weight of ice. The trout fishing is long months off—or is it?

From the little box on the arm of my chair I take a fly. The bend of the hook shows no sign of the original bronze, the tail and one wing are gone. The hackle loose from the frayed wrapping hangs dejectedly. A tiny bit of dirty yellow chenille identifies it as a Lady-Beaverkill—A flicker from the fire reflects a glint from the oaken panel on the wall and gives a truculent gleam to a hooked undershot jaw and expanded gill covers of the Old Brown.

Once more it is May and I rest squatting on my heels against the birch. There is a comfortable weight to the creel against my side and a certain weariness to my legs which approximates contentment. The hemlock lying with its upturned disc of roots in the water at the head of Black Pool casts long shadows in the evening sun. A tiny dun floats down the ripple into the pool untouched. Then another is caught by the rough swirls behind the roots of the prostrate hemlock and tries frantically to lift itself from the water. There is a distinct blur—as if the water were being poured from a jug and the dun is gone, but not without giving me a glimpse of a wide brown nose thrust for a fraction of a second above the water. The rod which up to this time had been idly lying across my knee goes into action and with the accuracy which comes at times, with excitement, drops the fly a scant inch from the tangled roots. Trout and fly meet at the surface and at the sting of the hook he rolls over and shoots down through the pool away from his lair among the roots. Into the shallows he flounders where the water discloses a high dorsal fin and broad brown back while the bamboo writhes in my hand

as I stumble quickly after him praying that the frayed 4x tippet will hold. Out into the slick he goes and finally comes to rest in the Bilger Hole below. Here in the slow deep water he comes to rest giving me a chance to work into a more favorable position, then we begin on a more equal footing. Slowly and carefully I put on the pressure of the rod, checking rush after rush until his white sides gleam a few inches under the surface. The net is cautiously lowered. Then I realize how much too small it is. Slowly I lead him to the gravel bar and with his tail against the bottom of the net, a quick thrust pushes him spent and gasping high and dry, on sand. Only then do I realize that both boots are full of water and my heart is beating a tattoo on my ribs. A thrust of the knife above the gill covers and quick twist of the frayed fly, then a bed of ferns for him, as I gloat over his generous proportions. The whip-poor-will's melancholy cry comes from the hill as I make my way slowly up to the car.

The old Beaverkill goes back into the box pensioned, for just such evenings as this. The pungent smell of burning wood mingles with the pipe smoke. The dog dozes beside my chair, with his head upon his paws, as the second fly comes to light, a March Brown, wet, this time with a tiny bit of fur still clinging to the barb. A good fly not hurt with usage, well made and able to take many a trout . . .

The peepers are still in full chorus in the late April dusk, the air is warm with a hint of dampness made stronger by the dull flashes of lightning along the wester horizon.

The still stretch of water above the log jam has yielded many fine trout in years past, and I need just one more for the creel. The March Brown drifts with the slow current while I hug the bank closely to avoid deep water.

A splash, to the rear, as if a heavy stone were thrown into the water, jerks my head

around. There is a tug at the fly to which my wrist responds instantly, but the fly holds no weight. A few feet below a broad wake appears, then a brown head—another splash of a broad tail and the beaver is gone. Slowly I reel in the fly and examine it. A few brown hairs cling to the barb. So ends the episode of the March Brown. Enough memory packed in that fly to last a few more years.

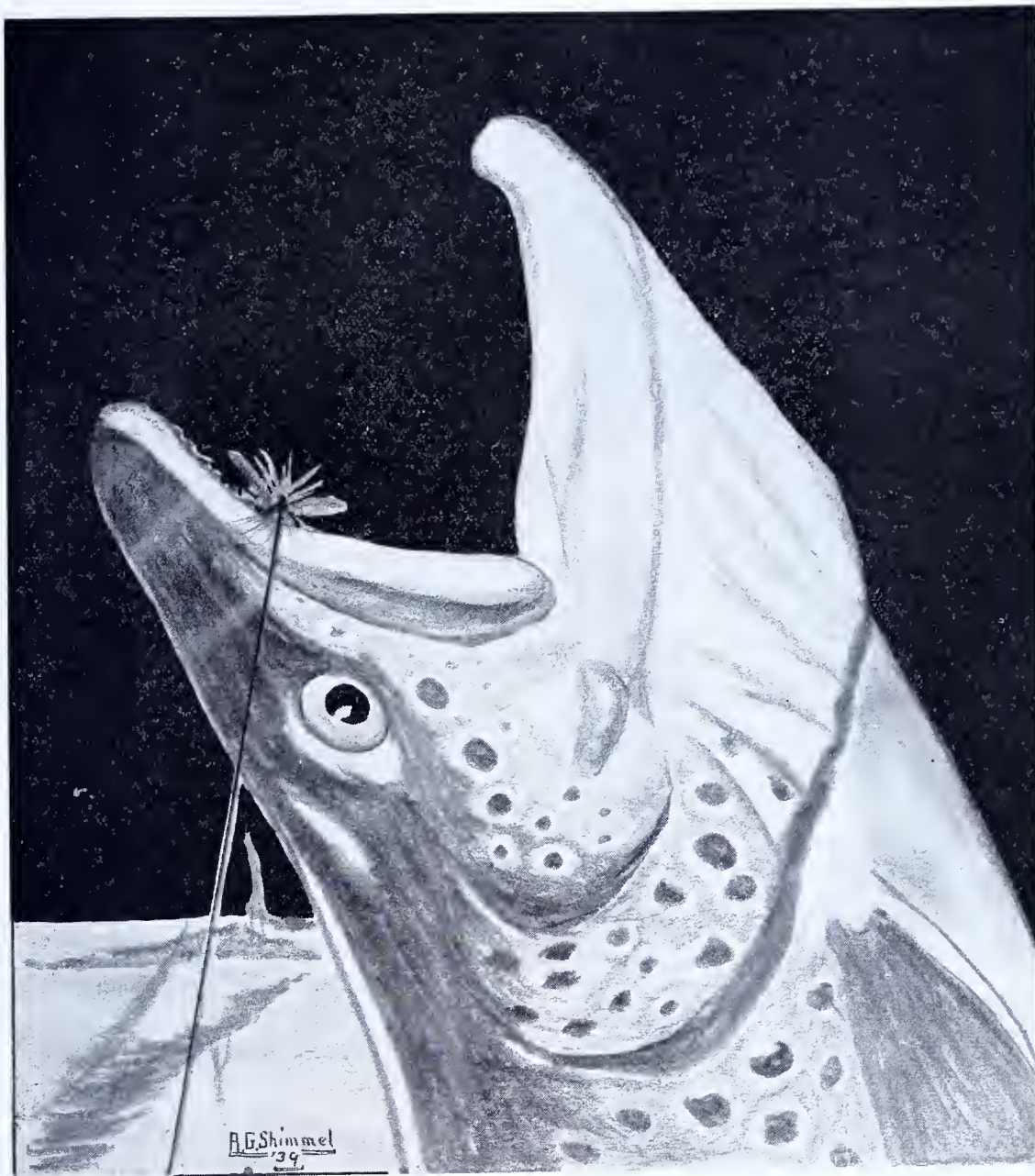
The back log of the fire breaks sending up showers of sparks as the fire resumes its fitful flickerings. A white miller recalls the evening on Fords run at the glade pool when a night hawk swooping low over the water mistook the counterfeit for the natural as it fluttered down at the end of long cast. How the reel screamed and the rod arched before the bird was finally brought to hand, to be released, a sadder, wiser bird but still unharmed save for sundry ruffled feathers and a slight scratch inside the mouth.

A yellow nymph with its black wing case torn loose from the head and standing upright; two hackle fibers are all that remain at the eye.

It is late June, one of those hot sultry days with low water which telegraph each move of the angler and make conditions the worst possible for taking fish.

Al and I have just fished Big Rock pool and are sitting beneath a hemlock discussing the way to take a nice fish waving his fins in the shadow of Big Rock. Out come the boxes of flies most of which have been found useless today. Down in one compartment of my box is the little Yellow nymph. With little confidence I attach it to a tippet and lengthen the leader to twelve feet. A long cast to the swift water where the nymph sinks and comes tumbling down among the small stones to lodge about four feet ahead of the trout. Putting as much pressure as I dare on the frail leader I shake the rod. The nymph comes loose and the bow of the rod jerks it to the surface. There is a streak in the water





and splash and as he turns again the sun glints on a broad rose-colored stripe. Time after time he leaps above the surface with all the fury of fighting rainbow until at last the net closes over him and he is reposing in the damp ferns of the creel, not large as trout go, a bare 14 inches, but game to the last.

A Flights Fancy comes next and with it another June day and another rainbow. a small one this time barely "old enough to vote" as Little Brother expressed it.

The sucker hole on Moshannon is flat and deep with only a small riffle at the far bank to make it interesting. Little Brother saw the trout jump and insisted that I try for him. Each time the fly rode over him he would jump clear of the water, falling on the fly and sinking it. On the fifth cast he was hooked squarely in the place where the seat of his pants would have been had he been a man. I hope he still lives there as he should be quite a respectable fish by this time.

The Favorite is exceptionally good as a dry fly.

Wood duck wing, golden yellow body, light buff hackle and tail, frayed and soiled from a float down riffle, glide and slick.

Mill Ridge Pool on Middle Branch—Early June with the smells of the pungent pine and damp earth clinging to the morning mists. I

put on the dry though all conditions point to a nymph on a long leader and stubbornly fish the pool without success.

A smaller shiner bubbles up and as I try to snatch the fly away to save redressing it, he drops down to the deep of the pool on a slack line. Carelessly I take in the slack intending to substitute another fly when I am aware of a tauntness, then a tug. A twitch of the wrist and the water boils giving me a glimpse of orange and black. No thrashing leaps but hard dogged rushes each one ending in a flurry at the surface only to be repeated again and again. The right angled strain of the rod keeps him moving until he comes in with the final spinning motion, characteristic of a heavy brook. The torn shiner lies inside his mouth held fast by the fly which has also penetrated the "Brook's" lips. Fishing is like that.

Fly after fly comes from the little box each with its whispered story of years past. Trout, the magic word carries with it a host of memories and a hope for Springs to come.

The clock disturbs the stillness as I listen again to the sleet rattling against the window pane. Twelve chimes. My pipe is out. The fire is gray ashes with only here and there a glowing coal. The dog whines restlessly in his sleep. Trout fishing is long months off, or is it?

## SPLENDID TURNOUT AT LEBANON MEET

Despite the inclement weather which undoubtedly prevented the attendance of many expected out-of-town sportsmen, the R Field and Stream Association's annual outing was held at the Pleasant Hill Gun Club near Lebanon in October.

A splendid turnout of Lebanon County and city sportsmen, as well as a number from neighboring sections, was reported by the committee and the unpleasant weather conditions failed to dampen the spirit of the sportsmen as they vied with one another in the various contests staked through the day. Prizes were awarded to the various winners by the committee in charge of the annual outing.

The results of the dog show:

Class winners: 1st Frank Weidel's male Basset Hound, "Duke"; 1st Herman Bucher's bitch Irish Setter, "Lupe"; 1st W. H. Meyer's male English Setter, "Bootjack"; 1st Pete Moyer's bitch English Setter, "Babe"; 1st George Messics bitch Beagle, "Fanny"; 1st George Messics male Beagle, "Dick".

Show winners: 1st W. H. Meyer's male English Setter, "Bootjack" (cup award); 2nd Pete Moyer's bitch English Setter, "Babe"; 3rd Frank Weidel's male Basset Hound, "Duke".

The results of the Fly and Bait Casting contests:

Professional Fly Casting, Distance: 1st R. O. Skinner, distance 75 ft.; 2nd J. Smith, distance 65½ ft.; 3rd H. B. Wagner, Jr., distance 63½ ft.

Professional Fly Casting Accuracy: 1st H. B. Wagner, Jr., score 49; 2nd J. Smith, score 44; 3rd H. V. Bucher, score 38.

Amateur Fly Casting, Accuracy: 1st J. Zidik, score 40; 2nd B. Hess, 35; 3rd G. Flowers, 23.

Amateur Fly Casting, Distance: 1st B. Hess, distance 67½ ft.; 2nd R. Bashore, distance 67 ft.; 3rd J. Zidik, distance 66½ ft.

Professional Bait Casting, Accuracy: 1st R. Skinner, score 36; 2nd W. Eckenroth score 36; 3rd H. Sherer, score 22.

Professional Bait Casting, Distance: 1st George I. Hartman, distance 124½ ft.; 2nd H. Sherer, 98 ft.; 3rd W. Eckenroth, distance 90 ft.

Amateur Bait Casting, Accuracy: 1st J. H. Smith, distance 111 ft.; 2nd J. H. Sherer, distance 104 ft.; 3rd H. V. Bucher, 93 ft.

Amateur Bait Casting, Accuracy: 1st J. H. Sherer, score 17; 2nd J. Zidik, score 11; 3rd I. P. Bailor, score 10.

The committee in charge included: H. V. Bucher, John Bernstein, Harry Wolfskill, Carroll Brightbill, Earl Wagner, D. D. Groy, Marshall Keener, Lloyd R. Blauch, P. G. Spangler, Benjamin F. Moyer, George Dis-singer, George I. Hartman, H. B. Wagner, Jr., John S. Spayd and A. Tobias.

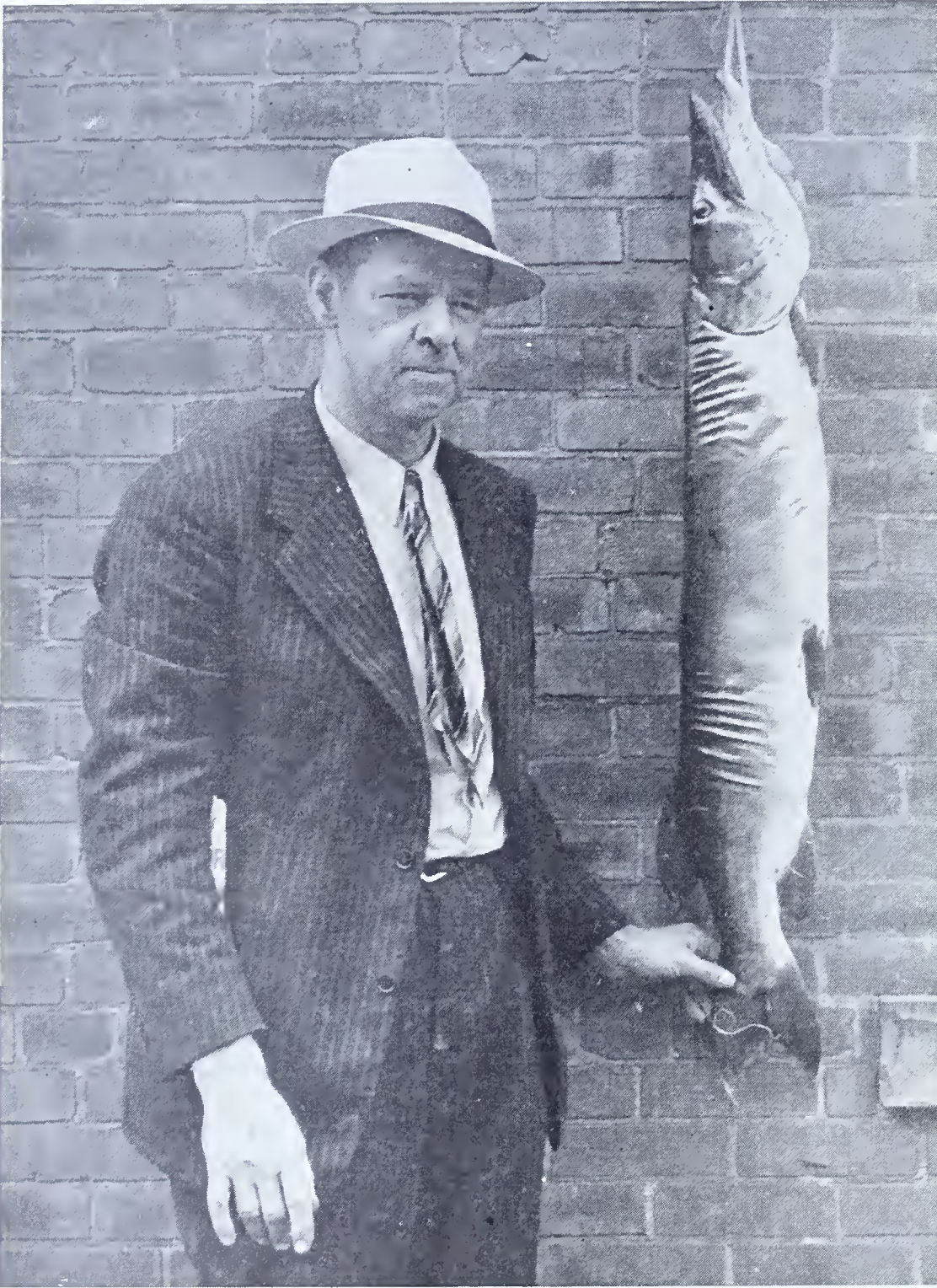
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The faith that truly moves mountains is not above practicing on the rubbish in the cellar.

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On the other hand there are people who will believe anything they think, but hardly anything they hear.





And here's the record muskie taken from Pennsylvania waters in 1939. R. C. Exley of Fairview, muskie champ, with his catch from Lake LeBoeuf, Erie County. It measured 47 inches in length, had a girth of 20½ inches and weighed 31 pounds.

## Pennsylvania Record Fish for 1939

(Continued from Page 5)

don, R. D., in Raystown Dam, Huntingdon County on the Raystown Branch of the Juniata River. This fish was 30¾ inches in length and weighed 9 pounds 4 ounces, reports Howd Shilling of Huntingdon.

The Susquehanna River, North Branch, at Catawissa, Columbia County, yielded a big wall-eyed pike to Ray Fox of Catawissa. This fish was 29 inches in length and weighed 6 pounds 13 ounces.

### Pickrel and Muskellunge

Pickrel catches this year were few and far between if we are to judge by the number of reports received. While, without doubt, the 30-inch chain pickrel taken by Emory Orris and Harvey Bair of Johnstown in Dun-

nings Creek, Bedford County, was tops from the angle of length, in the absence of any report as to weight of this fish, the ANGLER feels justified in ranking first the pickrel taken in Mountain Creek, Cumberland County, by Thomas Terrace of Mt. Holly Springs. This pickrel was 24½ inches in length and weighed 4 pounds 8 ounces.

Outstanding of the catches of those tigers of the fresh-water, muskellunge, in Pennsylvania was the big muskie taken in Lake LeBoeuf, Erie County, by R. C. Exley, of Fairview. The following report on this catch was made by E. C. Andrews of Erie:

"This muskellunge was taken from Lake LeBoeuf at Waterford by R. C. Exley, a member of the Erie County Sportsmen's League of Fairview, Pa., at 5 P. M. on July 5. It was

47 inches in length, 20½ inches in girth and weighed 31 pounds. Tackle used in scoring the catch was a home-made white ash rod, a Pflueger Oceanic reel, and U.S. 40 pound test line. The bait used was a black sucker."

A French Creek muskellunge, taken by Ross Kent of Wattsburg, Erie County, early in July was runner-up in this division. Measuring 43½ inches in length, this fish tipped the scales at 19 pounds 12 ounces. No girth was given. The catch was scored on live bait, kind not specified.

### Other Species

There are those who may contend that the common freshwater eel has no rating as a game fish, but we're willing to wager that any angler hooking a big eel on light tackle is liable to revise any lowly opinion he may have in this respect. Frankly, the two most unusual catches scored in Pennsylvania waters during the past season were made in Susquehanna County. Let's hear Special Warden V. B. Corle's version on the taking of these two giant eels, both of which topped all records for the species turned in to the ANGLER. Writes Corle:

"Leo E. Donahue of Montrose, Susquehanna County, was fishing in Little White Creek, Auburn township, for trout and using light tackle. After getting a bite and setting the hook, Leo was very much surprised to find he had a monstrous eel on the hook. After a hefty battle, he got the eel on the bank where he discovered he really had another battle on his hands. Finally, however, he succeeded in killing the eel and placing it on a stringer. Upon arriving in Montrose, the eel was measured and weighed by local sportsmen and was found to be 46 inches in length, with a weight of 9 pounds 8 ounces.

"Arthur Nye of Montrose, fishing in Heart Lake in August caught an eel 42 inches long and weighing 8 pounds 4 ounces."

Coleman Sheetz of Harrisburg had the distinction of taking the largest crappie reported. This fish, taken on fly, according to Special Warden Maurice Kanneg of Harrisburg, measured 17½ inches in length and weighed 3 pounds 15½ ounces. It was caught below Holtwood Dam on the lower Susquehanna River.

A giant Mississippi catfish, taken in the Shenango River, Mercer County, was tops among the catfish. Caught by J. R. Kozar of Farrell, the big fish measured 39½ inches in length and weighed 27 pounds, according to Warden C. B. White of New Wilmington.

The largest bullhead catfish reported was taken by John Danner of Allentown in Reading Reservoir dam. This fine bullhead was 18 inches in length and weighed 4 pounds 2 ounces. Worm was the bait used.

Blair Thompson of North Warren had the distinction of landing the largest sucker reported for the year. This fish, taken in Conewango Creek, weighed 4 pounds 12 ounces. Length and girth were not given.

A fine calico bass taken in Black Moschannon Lake, Centre County, by Billy McKee of Clearfield and reported by J. F. Livingston, Clearfield, was the largest fish of that species turned in. It was taken on a minnow.

The richest reward that comes from doing good work is the ability to do better work.



# OVER 2000 AT WALTONIAN MEET; ANGLERS COMPETE

Berks County chapter of the Izaak Walton League held its annual sportsmen's field day at Cedar Top Gun Club near Reading with more than 2,000 contestants and spectators on hand.

Feature of the day's events was a shooting exhibition by Fred L. Soisson, Hastings, Pa. Soisson, known as one of the outstanding pistol, rifle and gun experts in the country, staged a remarkable demonstration of his prowess with all kinds of arms.

Dan Diefenderfer, smashing 49 clays, won the Berkshire Hotel trophy in the shoot limited to club members. One of the most remarkable wins of the day was by Jack Muhlenberg, 13-year-old son of Webster Muhlenberg, of Morgantown. The youngster, using a 12-gauge shotgun, outshot the field in the third class of the trapshooting competition.

Roy Hemming, former state champion, cracked 49 clays in the first class of the open events, stalemating with P. W. Hoffman, Binghamton, N. Y., professional.

## Summaries

Running bear shoot—Squad 1, F. Hoffman; squad 2, Ernst; squad 3, R. Kleckner; squad 4, Dr. Grabiak; squad 5, Grill; squad 6, J. Goodhart; squad 7, Hamilton; squad 8, Kunkel; squad 9, Swoyer; squad 10, Reitz; squad 11, C. Miller.

Re-entry pistol matches—Class A, won by William Riegel, 91; Class B, won by J. Goodhart, 77; Class C, won by M. Brande, 70.

Fly-casting or accuracy (open)—Won by R. O. Skinner, Palmyra; second, Robert Clover, Allentown; third, R. W. McCafferty, Palmyra.

Fly-casting for distance (open)—Won by R. W. McCafferty, Palmyra; second, R. O.

Skinner, Palmyra; third, Charles Parker, Temple.

Bait-casting for accuracy (open)—Won by John Rothermel, West Lawn; second R. W. McCafferty, Palmyra; third, Arthur Clark, Fox Chase.

Bait-casting for distance (open)— Won by R. O. Skinner, Palmyra; second, Russell Hoffmaster, Leesport; third, Harvey Adams, Shillington.

Bait-casting for accuracy (members only)— Won by John Rothermel, West Lawn; second, M. J. Golden, Pennside; third, Willis Goddard, Reading; fourth, Paul Hertzog, Shillington.

Bait-casting for distance (members only)— Won by M. J. Golden, Pennside; second, Russell Hoffmaster, Leesport; third, Clem Parlamen, Reading; fourth, Harry Cook, Reading.

Surf-casting for distance (open)— Won by William Rohn, Reiffton; second, Paul Hertzog, Shillington; third, Willis Goddard, Reading.

Trapshooting summary — Izaak Walton Classic, 50 targets: Roy Hemming, Reading, 49; Daniel Diefenderfer, Gibraltar, 49; P. W. Hoffman, Binghamton, N. Y., 49; Warren E. Trexler, Kutztown, 48; George Stieff, Denver, 48; Irvin Sheeler, Kenhorst, 48; George Tilbrook, New Holland, 48; Mere J. Golden, Reading, 48; John J. Marberger, Reading, 48; Edward Eisenbise, Shillington, 48; J. Webb, Muhlenberg, Morgantown, 47; Lawrence Lesniewski, Reading, 47.

Frank D. Louser, Mt. Aetna, 46; Lester Kochel, New Holland, 46; Mahlon F. LaRue, Shillington, 46; George Swoyer, Reading, 46; Warren Martin, Terre Hill, 45; Walter G. Irwin, Reading, 45; Charles Matz, Sinking Spring, 45; Robert Parlamen, Washington, Pa., 45; George Shupp, Shillington, 44; Ray C. Behney, Mt. Aetna, 44; Al. Mittower, Adamstown, 44; John Martin, Terre Hill, 44;



Glenn Conklin of Tididoute with the 27 1/4-inch brown trout he caught in the Allegheny River this year on bucktail and spinner. This fish was in the top bracket of record brown trout catches for 1939, weighing 7 pounds.

Edward Schell, Reading, 44; Herbert K. Tobias, Glenside, 44; Charles Bechtel, Reading, 44; Harvey Stubblebine, Laureldale, 44.

Dr. Isaac B. High, Reading, 43; Marvin Buchalter, Mohnton, 43; Frank Thompson, Reading, 43; Morris R. Kern, Terre Hill, 43; Walter Lesbiewski, 43; Miles Oxenreider, Richland, 43; Bert Hinkle, Blandon, 43; Caleb Killian, Reading, 43; Herbert Segars, Reading, 43; Jack Muhlenberg (13 years old), Morgantown, 42; George Ennis, Mt. Penn, 42; Charles M. Quaintance, Reading, 42; C. F. Oberholtzer, Geigertown, 41; George M. Leed, Fivepointville, 41; George Bechtel, Reading, 41; William Bordner, Robesonia, 41; George Fairchild, Reading, 41.

Elmer Leed, Stonersville, 40; John A. Gingrich, Reiffton, 39; Harry Stauffer, Reading, 39; Jacob Sherk, Myerstown, 39; Paul W. Sweigart, Morgantown, 39; Clem Parlamen, Reading, 38; Harry Espenshade, West Lawn, 38; John G. Neubling, Reading, 38; R. P. Steele, Norristown, 37; William W. Miller, Jr., Shillington, 37; Harvey Miller, Reading, 36; Francis Bettinger, Reading, 35; Charles W. Davis, Reading, 35; Harry Ernst, Temple, 34; Harvey Riehl, Stouchsburg, 33.



The Susquehanna River in Columbia County yielded this 29-inch walleyed pike, weighing 6 pounds 13 ounces, to Ray Fox of Catawissa.

Juniata County trout fishermen accounted for some fine brook trout during the past season, according to Warden C. V. Long of East Waterford. Gerald Fasick of Mifflintown caught a brookie measuring 15 inches in length in Liberty Valley Run. Walter Rouch, McAlisterville, R. D., accounted for a 17-inch brookie in Lost Creek. Both catches were scored on minnows. Girth and weight of these catches was not given.



## MONTGOMERY CLUBS PLAN FALL PLANTING

The Federation of Sportsmen's Clubs of Montgomery County held its quarterly meeting in the Huntington Valley School House, Red Lion Road, Huntington Valley, as guests of the Huntington Valley Fish and Game Protective Association, who served refreshments after the business meeting. Nearly all of the fifteen member clubs were represented by from three to six delegates each at this meeting, which was in charge of Irwin Clemens, President of the Federation and President of the Royersford Game Association.

The Treasurer of the Federation, Harold E. Curll, of Norristown, reported that, through the efforts of loyal members, the Federation owed no debts at the moment.

Howard Shallcross of Graterford, Frank Clamer and H. White of Graterford reported on the work of the Ways and Means Committee, which arranged a number of interesting events during the past three months, including a tour to Montgomery County game raising and fish propagating projects, and a clam bake at the new Montgomery County Sportsmen's Park at Green Lane.

E. F. Browse, District Forester of Montgomery County, reported that the Forestry Committee will buy for the Federation at a small cost which was authorized by the meeting, a quantity of seeds for fall planting of trees, including hazelnut, shellbark, papaw, persimmon, butternut, walnut, fox grape, American beech, Chinese chestnut, white pine, red pine, barberry, mulberry and snowberry. When these trees are ready for transplanting, they are given to the member clubs of the Federation for planting in their respective territories. Mr. Browse requested that if anyone has shellbarks or other



This 31½-inch walleyed pike, taken in Lake Wallenpaupack by Robert Tragus and Robert Ammond, patrolmen for the Pennsylvania Power and Light Company at the lake, had a girth of 20 inches and weighed over 9 pounds.

tree seeds of this year's crop available for planting, he'd appreciate knowing of them.

State Game Protector Ambrose Gerhart and Howard Shallcross reported on the work of raising of pheasants for the Federation by inmates of the Eastern Penitentiary, Graterford, under the guidance of Ira J. Mills, Director of Agricultural Education at the Penitentiary. There was also a report from Mr. Mills relative to the number of birds raised and liberated during the current year by this worthy endeavor, which not only provides a means of education in poultry raising for the prison inmates who take part in it, but which also provides additional shooting for the member clubs of the Federation during the hunting season.

Harry Z. Cole, Fish Warden of Montgomery and Bucks counties, reported on the fish stocked in Montgomery and Bucks County streams during the past year by the Pennsylvania Board of Fish Commissioners. He also reported that from the five Montgomery County propagating ponds in which he has been raising fish for the Federation, there were taken and liberated in the Montgomery County streams a total of 94,350 sunfish, catfish, suckers, tadpoles and millroach minnows. The ponds in which these fish were raised include two Beidler ponds at Abrams, the Hankins pond near Collegeville and the French pond, also near Collegeville. The Federation last night decided to allot a sum of money on its next year's budget to provide sufficient feed for the fish which are being raised in these ponds.

John Miller of Narberth, George Sinclair of Norristown and Howell Dietrich of Philadelphia reported to the meeting on the work of the recently organized SCHUYLKILL RIVER VALLEY RESTORATION ASSOCIATION, whose purpose is to CLEAN THE SCHUYLKILL RIVER; following reports on this project, it was unanimously voted that the Federation officially become a member of this Association which is composed of public-spirited citizens throughout the entire

Schuylkill River Valley who want to cooperate with the Government in cleaning and restoring the Schuylkill River to its original beauty and usefulness.

The Chairman of the Publicity Committee reported that news articles concerning the various activities of the Federation have been sent out to the daily and weekly newspapers of Montgomery County, to Joseph O'Byrne, outdoors commentator for Radio Station KYW and to various other vehicles of publication during the past three months.

A report was made to the Federation on the recently held Annual Meeting of the Southeast Division of the Pennsylvania Federation of Sportsmen's Clubs; this report was presented by Frank Clamer, a delegate from our Montgomery County Federation to the Southeastern Division of the State Federation.

It was announced that the next quarterly meeting of the Federation will be held on the third Monday of January in the Valley Forge Hotel in Norristown.

It was also decided at the meeting that the Annual Banquet of the Federation will take place on Thursday, January 23, 1940.

## BACKYARD FISHING

(Continued from Page 10)

Our third trip around that fifteen acre pond brought plenty of excitement at the northern end. Paul landed two fifteen inch pickerel on a Colorado spinner to my one on the same kind of bait. Mine, however, was less than thirteen inches long. Neither of us believe in keeping pickerel under eighteen inches and so all were returned to their homes.

Around 9:30 the bass knocked off for the day. By that time Paul had landed two nice ones to my three. I also had some real, honest-to-goodness fighting fun, however, just before the fish stopped biting. Blanding



Head of the 8 pound brown trout caught by Curtis Klopp of Stouchburg in Tulpehocken Creek, Berks County. It topped the brownie division this year.



Lake has the reputation for housing one of the largest, orneriest and most stubborn pickerel in this section of the state. He and I have had three tussels, two last year and one this, with him always coming out the winner. The other morning he took twenty feet of my new yellow line and one of my favorite june-bug spinners back to his home in the deep to add to his collection of souvenirs. To date, he has stolen approximately sixty feet of my line, a plug, a spinner, one hook, one sinker and one very good live crab.

I know he is big for I have seen him on several occasions and have talked to other fishermen who have had similar encounters with him. I have vowed that if I ever catch him I'll turn him loose. He is more fun in the lake than on any platter. The keen anticipation that he may be the next to snag your luscious tid-bit is too good to spoil by eating him.

Now and then I fancy myself quite a fisherman. Then I tie into old Granddaddy and have the wind taken out of my sails. I realize that if I were to use heavier equipment, at least a heavier line, I would probably land him. The use of such equipment, however, would reduce my chances of meeting him at all and would likewise reduce the number of bass I catch, both in Blanding and elsewhere. I would rather play along the way I am, giving him a spinner and a piece of line now and then, hoping someday I may get the jump on him.

With the bass apparently on vacation Paul and I anchored and fished with live bait for awhile. For the number of bass we caught we might just as well never have lugged that additional load through the early morning. What we did do, though, was to catch a number of sizable perch on shiners and bass-bugs.

I landed another two pound bass on a green plug along towards the middle of the

afternoon, but with that exception the fishing was dull until early evening. Before the darkness of the night was shattered by the brightness of the moon, both of us had landed two more smallmouths. That consummated a good day's fishing—ten bass and three pickerel—right in our own backyard.

NET REGULATIONS

At the last meeting of the Legislature, amendments were made to the Fish Laws, prohibiting the possession of nets more than four feet square or four feet in diameter without a permit from this Board. These amendments are as follows:

Section 53—Nets permits. The Board may issue permits to make, sell, or possess nets larger than four feet square or four feet in diameter. Such permits when issued shall specify when and where such nets shall be used by the owner or the persons in possession thereof.

Section 54—Nets unlawful without permit. It shall be unlawful for any person to make, sell or have in his possession a net larger than four feet square or four feet in diameter without a permit issued by the Board. The possession of a net without a permit therefor shall be prima facie evidence of the violation of this section.

Section 55—Penalty. Any person violating any of the provisions of Section 54 of this Article shall upon conviction as provided in Chapter XIV be sentenced to pay a fine of not less than One Hundred Dollars (\$100.00) nor more than Two Hundred Dollars (\$200.00) and to undergo imprisonment for a term of thirty (30) days for each violation.

Minor Operation: Cutting off Junior's allowance.

WALTONIANS FIGHT TO IMPROVE STREAM

The Schuylkill County Chapter of the Izaak Walton League refuses to admit defeat in its efforts to improve Locust Creek in the Locust Valley and make it a better stream for trout fishing.

It invited 19 fish and game clubs of Schuylkill County, for the most part clubs whose members fish in that stream, to a meeting at the Tamaqua Rod and Gun Club clubhouse where the fight to have the stream improved was launched on a new front.

This time the Ike Waltons are going to try to get a WPA project there, seeking federal funds and having the invited clubs throw their weight behind the movement.

In August of this year Izaak Walton League members and a number of other sportsmen turned out for several Sundays and built dams and deflectors on Locust Creek. They had hoped to arouse enough interest among sportsmen to have a turnout each Sunday of several hundred men, and thus complete the necessary work in a couple of weeks.

But only a pitifully small handful responded and while they did succeed in improving nearly a mile of the creek, it was not enough and the Ike Waltons knew that some other method must be tried.

Locust Creek, now a slow flowing and shallow stream throughout much of its length, could be made one of the best trout streams in the state if more cover and deeper holes were provided. The Izaak Walton League through its energetic president, Dr. William Walinchus, is not going to stop until this is done.

FAMILIARITY BREEDS CONTEMPT

(Continued from Page 9)

"this old warrior died fighting. No wonder he never moved after that last rush."

"Likely died of heart failure when he saw who had him," caustically remarked Burr.

"Aw go on, you're sore because you can't get one."

"Can't hey? Take a look at my line."

After Burr had landed his fish, a nice two-pounder, I went on my way to the head of the riffle. At a point where the current swirled under the exposed roots of an elm I tossed a popular, small sinking plug and succeeded in landing a pound and a half fish.

By the time I had covered that comparatively short stretch between the head of the riffle and the pool, I accounted for four fish, none over two pounds but all well above the legal length. My companions had fared as well, having caught a total of nine fish.

Since this revival of relationships with the Neshannock we've fished it several times with the same gratifying results. Besides impressing us with the good fishing it has effectively driven home the truism that after all, it's the fishing that makes a fishing spot glamorous. And believe me, those he-horse bass of the Neshannock have gone a long way toward proving it. Don't contemptuously turn up your nose at local fishing facilities—give them a whirl. Remember that four or five fair fish in the creel are worth bushels of anticipated ones even though they may be record breakers.



Hartley Harrison, Jr., of Westtown with his 23-inch 5¾ pound largemouth bass taken on plug in Westtown Lake.



## CASTING EVENTS AT LAWRENCE MEET

Sportsman's Council of Lawrence County held its annual field trials at the New Castle fair grounds with approximately 1,000 in attendance. Events were staged throughout the morning and afternoon.

Princess Josephine, owned by C. B. White of New Wilmington, captured the derby, with Budd's Judy, owned by Earl B. Walker of Evans City, taking second place.

In the all-age event, Pay Day, owned by G. H. Kilgore, R. D. 8, captured first place. Boy LaRue, owned by C. E. Stitt, R. D. 5, won second place, and Jack, owned by Don Mooney, New Castle, took third place.

The Beagle events resulted as follows:

Thirteen-inch: first, Moore's Best, owned by R. D. Moore, Mahoning R. D.; second, Tess Struthers, owned by C. Hetrick, Struthers, and third, Bimber, owned by W. C. Bimber, Beaver Falls.

Fifteen-inch: first, Stagehand, owned by C. Hetrick, Struthers; second, Hetrick's Trick, owned by Harold Hetrick, Mahoning, R. D.; handled by Bruce Moore; third, Rick Hill's Jack, owned by Harold Hetrick, Mahoning R. D. 1.

The Beagles were judged by George Ward and Ralph McCormick and George Sloan of Sharon judged the bird dogs.

There were no Lewis shoots. However, there were numerous straight shoots, and among the perfect marks for 25 birds was Jimmy Atkinson, 86. Other good marks were: Moore, 25 of 25; Pitts, 25 of 25; Patterson, 25 of 25; Keefer, 23 of 25; McClung, 23 of 25; Richards, 24 of 25, and in skeet shooting: McClafferty, 25 of 25; Sweeney, 24 of 25; Paul, 24 of 25, and Carnahan, 21 of 25.



Lewis Greene of Huntingdon snapped this photo of Ken Peason, Huntingdon, with two fine brook trout he caught in Spring Creek, Centre County, early in the season this year. The catches were scored on a Juniata streamer fly.

In the .22 small bore rifle shooting high was won by Bill Houck of this city. In another event a similar honor went to Art Wray and a third event found Glenn Moore-head high.

In small bore shooting Walker won the prize.

The bait casting events were as follows:

Three-eighths plug accuracy, first, Lang, Pittsburgh; second, George Hall, and third, George Trigg.

Five-eighths plug accuracy, C. W. Ward of Pittsburgh made 100 per cent. He made 10 casts each one perfect; second, Carl Britenbaugh, and third, George Trigg.

Five-eighths plug accuracy for entries from Lawrence and Mercer counties: first, Jack Adderty, Sharon; second, Andy Kawana, Sharon, and third, Mrs. Stella Kawana, Sharon.

Five-eighths plug accuracy, Lawrence County entries: first, Tony Gorenz, Bessemer; second, John Kimmich, Ellwood City, and third, R. H. Wilson, New Wilmington.

Fishermen's plug accuracy: first, C. W. Ward, Pittsburgh; second, Karl Britenbaugh, Pittsburgh, and third, Jack Adderty, Sharon.

Akron Lead, owned by the Akron, O., kennels, won the coon dog event. The trials resulted as follows:

Georgia Red owned by Johnuzer and Persch, Sharon, won line; Akron Lead, owned by Akron, Ohio Kennels, won tree; Scout, owned by Johnuzer and Persch, Sharon, won line and tree; Bad Andy, owned by Akron Ohio Kennels, won line; Cry Baby, owned by Joyner and Johnson, this city, won tree;

Little Richard, owned by Akron Ohio Kennels, won line; Sport, owned by Dave Wheale, this city, won tree and Indiana Jack, owned by Walter Moore, Ellwood City, won tree.

## WINTER TACKLE STORAGE

(Continued from Page 7)

cannot penetrate glass jars and therefore they make an excellent place to store flies, but one thing must be remembered. A certain amount of moisture may collect in glass jars and cause the hooks to rust. This can be prevented however by the use of lime, as lime will absorb any moisture that might occur, so I store my flies in the following manner: In the bottom of a glass jar I place a tablespoonful of slacked lime. Over this is placed a cardboard disc. On top of this disc is placed a teaspoonful of paradichloride crystals, which in turn are covered by another disc. These cardboard covers keep the chemicals away from the flies but still through slow evaporation the flies are saturated to such an extent that they are practically mothproofed.

A small container filled with lime and placed in the tackle chest will prevent rust and keep tackle in better shape.

You know, fellow anglers, tackle is like fish in the respect that if we practice judicious care and conservation of what we already have, it is far less expensive than practicing restoration because we have been careless with that which has been entrusted to us.

## PRESS COMMENT

The *Evening Public Ledger*, of Philadelphia, in its issue of October 19, in commenting on one phase of the work of the Pennsylvania Board of Fish Commissioners, as discussed in the October number of PENNSYLVANIA ANGLER, editorially said:

### Watersnake Control

Drought-stricken streams and a tremendous increase in the number of licensed fishermen in this State have induced the Pennsylvania Board of Fish Commissioners to stress the necessity of watersnake control this year. It is emphasized that the co-operation of sportsmen is vital to the success of the campaign. Another point made clear is that extermination is not the consideration. The role of the reptile as the agent in removal of diseased and otherwise unhealthy or weak fish in any body of water is recognized as valuable.

Because of the extremely dry summer Pennsylvania waters are at or near record lows. This is favorable to appalling slaughter of fish life in trout and warm water streams. Watersnakes reproduce at a high rate, adult females frequently bringing forth litters of from twelve to forty. The increase in the number of fishermen from 260,000 to almost 400,000 in the last year, with probably an even greater number this year, has resulted in a constantly increasing drain on food, game and forage fishes by anglers.

Trout streams have dwindled in many instances to a succession of pools with constantly increasing riffle areas being exposed to air and sun. This has resulted in concentration of trout of various sizes in the narrow confines of the pools, which is extremely favorable to the deadly execution by the watersnakes.

Under existing conditions the crux of the problem of the watersnake in many warm water streams is strong control measures for reducing the population in areas where the toll of the reptiles on fish life is excessive. Wading birds, such as heron, bullfrogs and fish of certain species relish young watersnakes as food, but as man has assumed the role of major agent in holding down fish population, the Fish Commissioners are appealing to him to assume the role of predator control on his favorite streams.

## R FIELD AND STREAM IS GRANTED CHARTER

Judge C. V. Henry has granted a court charter to "R" Field and Stream Association of Lebanon County, under the non-profit corporation law of Pennsylvania. Application was made for the certificate some weeks ago and was filed for the regulation period required by the Act of Assembly.

The incorporators are: D. D. Groy, of Hershey; Benjamin Moyer, of Annville RFD 2; Thomas P. Nagle, of Independent Borough; Paul G. Spangler, and Herman V. Bucher, of Lebanon.

The first directors named for the new corporations are: Herman V. Buch, Lebanon; J. G. Spayd and Albert Tobias, Lebanon RFD 3; Harry M. Wolfskill, Newmantown and Harry H. Shirk, Sheridan.

The organization is formed for the promotion of fishing and hunting, and stocking streams and hunting grounds with fish and game secured from the fish and game commissions of the state.





Members of Brookside Sportsmen's Club of Wilkes-Barre stocking fish, netted from caveholes, in Harvey's Lake.

## BROWNIES OF THE BUSHKILL

(Continued from Page 15)

I remember too, sometime afterward on the Bushkill, when I heard Ed my fishing partner call to me to hurry that he needed help. It was not quite dusk and we were fishing one of the dams from the top of about a four foot embankment with no possible chance to wade from our side of the creek. Pushing my way thru the high weeds I found Ed giving his rod occasional short jerks. "What's the matter are you fast to the bottom?" I asked. "No, I'm hooked to a large brown trout and he is sulking on the bottom," was Ed's reply. While I was giving Ed advice, (not that he needed any) so as not to break his leader or line, the trout started seeing-sawing up and down the creek. From my position a few yards below I could see the trout when it darted my way. What a beauty he was. I judged it would have measured from twenty to twenty-two inches. But alas we never did get to put the tape on him. "Take it easy, he's hooked in the tail," I shouted. I was now down on my stomach on top of the embankment and reaching out as far as I could with my short handled net. Hoping Ed could bring the trout close to the bank I was ready to make a quick scoop at it with the net. That trout had ideas of it's own and with a sudden dive of the trout, the fly pulled out of the tail and he was gone.

You have no doubt heard of the "Dance of the May Flies," but did you ever hear the music that accompanies the dance. I have had that experience quite a number of times on the Bushkill. I have told you how this creek is in such close proximity to the city of Easton, but I did not mention about the amusement park that is on the creek. In fact the scenic railway crosses and recrosses the creek in several places and I have caught trout directly under the trestle work that supports this amusement. What would an amusement park be without the "Merry-Go-Round" and the music which emanates from its mechanical organ. I have at times almost kept my false casts in time with the music while fishing this part of the creek. It seems

to me that the insects on the creek, too, were keeping cadence to the music as they danced up and down on the surface of the water. How incongruous such environment when fishing for the most wary and finnick of fish, the brown trout.

## WAYNE FIELD DAY WAS BIG SUCCESS

More than 1,000 sportsmen from all parts of Northeastern Pennsylvania attended the annual field day of the Wayne County Sportsmen's Association at the newly-purchased game land near Tanners Falls, four miles from Honesdale.

Scores entered the many field events, with Edward Freeman, secretary of the association, and Judge Alfred Swoyer copping the accuracy test in fly and bait-casting, respectively, a subject which has been controversial in Wayne for many months.

Second in the fly-casting accuracy test was Justice of the Peace N. C. Farnham, Honesdale. The fly-casting distance champion also is Freeman, with a toss of 84 feet. Dr. Nathaniel Engvaldsen, Honesdale, was second with 81 feet. Dry flies were used.

Second to Judge Swoyer in the bait-casting accuracy contest was Fred Holl, Honesdale. Dr. Engvaldsen was the distance champion in this event, with a toss of 102 feet, while Judge Swoyer was second with 93 feet.

Fred Haegele, Hazleton, finished first in the trap shoot, while State Game Protector Maynard Miller, Honesdale, was second. Thomas White, Honesdale, scored 14 of 15 tries to win the deer target shoot. E. S. LaBar, Hawley, and J. Stimpson were second with 13 out of 15.

In the pistol shoot, LaBar nosed out Faatz, 76 to 75, while John Rowe, with 75, won the rifle shoot. P. Compton was second with 74 points and LaBar, third with 72.

"Mona Queen", owned by Homer Smith, Seelyville, won the open field trials, with Judge Swoyer's "Irish Mug" finishing second and Walter Steelman's "Mancha Moe", Honesdale, running third.

The field trials for puppies was won by Steelman's "Mancha Red", with Frank Westgate's "Red" coming in second. The coon hunt, with live coons used, was won by "Blue", owned by Harry Hillwig, Factoryville. A dog owned by John Ladyn was second. "Blue" won the finals of this event.

A demonstration was given by Walter Simmons' "Dandy Dan", an English setter who located a bird and held its point for five minutes.

The day's events climaxed the third anniversary celebration of the Wayne association which began with a banquet at the Wayne hotel attended by 75 sportsmen and friends.

Roy Howe, Lake Ariel, president, made the address of welcome and introduced Dr. O. R. Hippensteel, banquet chairman. Dr. Hippensteel introduced the following guests, each of whom made brief remarks:

Seth Gordon, Harrisburg, Director of the Game Commission; William G. Fluke, Game Commissioner, Major Gerald Conklin, James Morton of the commission; Dr. C. A. Mortimer, secretary-treasurer of the Pennsylvania Sportsmen; the Rev. Samuel Trescott, Dalton, member of the Fish Commission; H. S. Smith, Wilkes-Barre, president of the Northeastern Federation of Sportsmen; J. Q. Creveling, of Wilkes-Barre, a member of the Game Commission for 40 years and originator of the conservation projects; Gerald Zettels, superintendent of the Pleasant Mount Fish Hatchery; Senator Montgomery Crowe, Stroudsburg, and Representative I. S. Dix, Honesdale.

Dr. Mortimer, Creveling and Smith were presented with gifts for assisting in the organization of the Wayne Association. James Arthur, vocalist, and Joseph Bodie, pianist, provided music.



The Brookside Sportsmen's Club of Wilkes-Barre have a well balanced conservation program. Two members are shown netting fish from caveholes for restocking in Harvey's Lake, Luzerne County.



## CONSIDER DREDGING OF THE LOYALSOCK

Consolidated Sportsmen of Lycoming County, meeting at Moreland Baptist Church named a committee to determine the advisability of dredging the mouth and lower stretches of Loyalsock Creek.

The committee and engineers of the Water Power and Resources Board are to make the investigation. About 95 directors of the association enjoyed a chicken dinner before the business session.

In addition, directors welcomed a new Montgomery representative, decided upon banded ringneck and deer awards, received membership reports and conferred prizes, and announced the fish stocking program which has been followed out in Lycoming County.

John C. Youngman, Dalton W. Bell, William H. Corson and S. Dale Furst were named on the committee to investigate the Loyalsock Creek condition. Unless sportsmen of

this district approve the plans, Charles A. French, Commissioner of Fisheries and member of the power board, will refuse to approve dredging activities. All recreational aspects will be taken into consideration.

Fish stocking reports disclosed 19,800 federal brook and rainbow trout were distributed, 10,500 small sunfish, 8,000 catfish, 2,300 fingerling bass and 150 bass, 10 to 24 inches in length. Loyalsock and Lycoming creeks both received 50 large bass, 400 fingerlings, 1,600 catfish and 2,000 small sunfish; Little Muncy Creek 800 catfish and 1,500 sunfish; Pine Creek 50 large bass, 1,500 fingerlings, 4,000 catfish and 5,000 sunfish. Of the trout, 9,000 were released in the Williamsport area, 5,400 near Jersey Shore, and 5,400 near Muncy. All fish went into public streams.

Membership reports disclosed 1,585 already paid, with returns incomplete. Walter C. Horn, association president, and Mr. Corson were tie for individual honors in the drive, earning the right to split the first prize of

\$10. They turned it back to the association. Mr. Corson's team won the team prize, and directors refused to permit it to be returned.

H. L. Strouse, Montgomery, active in river purification work in that district was introduced as a new director.

## AN OPEN LETTER ON LICENSE FEES

Editor  
Pennsylvania Angler  
Harrisburg, Pa.

Dear Sir:

In regard to the changing of the price of the Fishing License, I am going to give a few ideas of the game.

I am just as fond of fishing as the next fellow, and as Mark Twain quoted, 'A fishing beside some shady pool, A wishing there never was a school.' **THE SPORT JUST CAIN'T BE BEAT.**

I am out of work just now, but that does not spoil or stop the fun of fishing and when I am not fishing, I take my 22 out to kill watersnakes on the streams and bass waters. Day before yesterday I got 23 of them, and stopped eight young boys fishing for trout, three of them had seven dandies, eight to ten inches, and mark this; not a one had a license, now **THAT** is my argument.

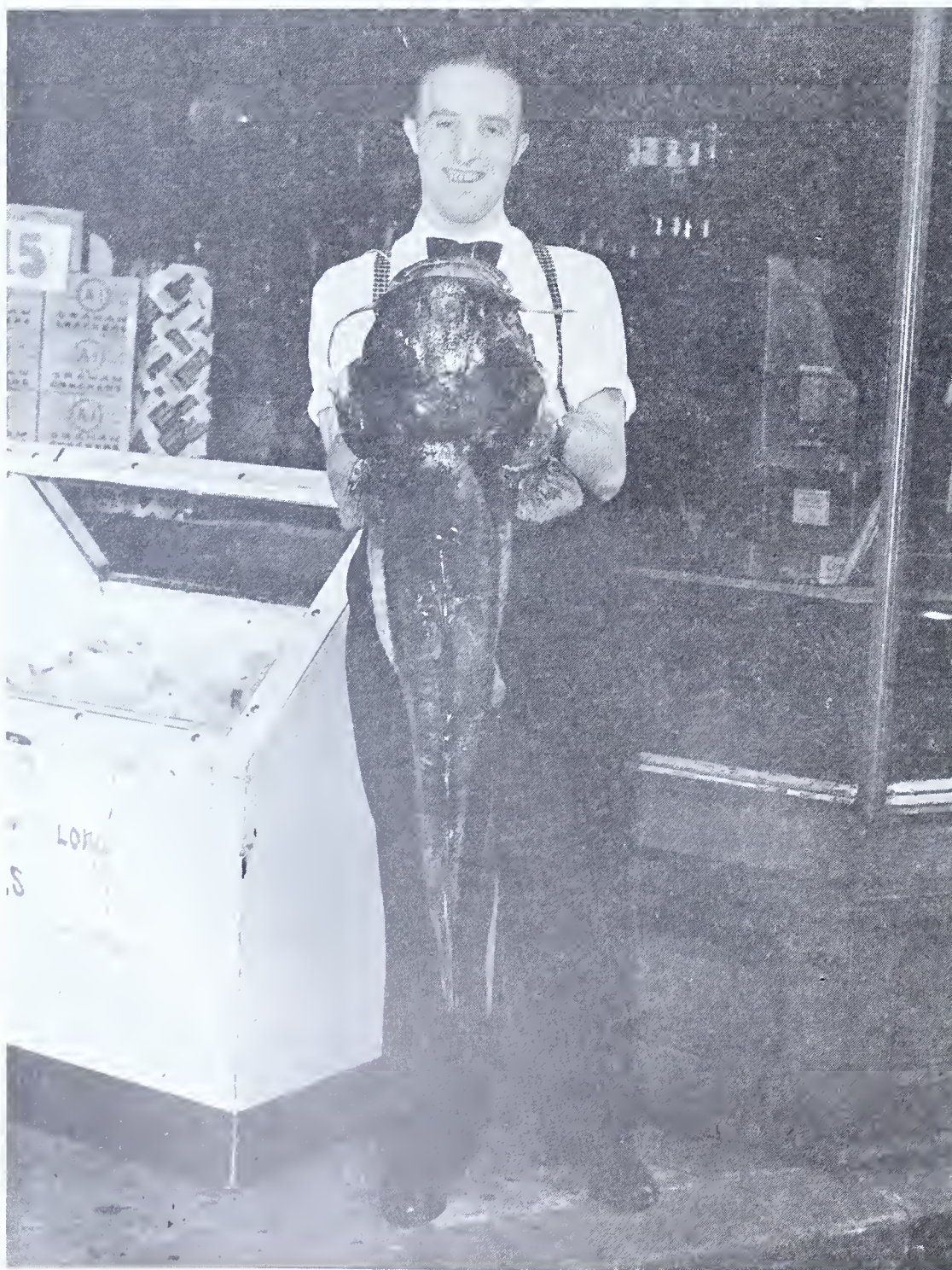
Mr. E. L. King of Harrisburg stated in the August **ANGLER** not to bring the fee back to the 14 year age.

I feel, and many others do, that I have spoken to on the same subject, that any one that is able to carry a fishing pole should be charged with a license, although I do not feel that they should be charged as much as we. For instance, our license being a dollar and a half (\$1.50), the boys under 14 years paying seventy-five (.75c) cents. You and all the rest of us know that these young fellows are just as good fisherman as the best. Specially the ones in the country, they are on the streams from daylight to dark, they pay no attention to the size—season or limit. They learn the best pools and if they do not get their "target" to-night, they visit that pool till they do get it.

Early in the season, when the children are still in school, you can see any number out fishing. "PLAYING HOOK". I will vouch that one-third of them are out on the streams everyday and still we buy the fish for them to catch, **AND THEY CATCH THEM, TOO.**

Early in the past season, I was out for trout with my flies. I had been out all morning and not so much as had a "strike." I came across a couple of young boys, that had five or six dandies on their belt, they asked how the automatic reel worked. Upon working it for them, one spoke up and said, "do you know why you are not catching any?" With a laugh I asked him why. "You have too much junk to fish with successfully, all you need is an old stick for a pole, and an old bent pin, and a piece of string." I laughed at that at the time, but have thought of it many a time since and thought that he was right.

Sincerely yours,  
Gardner Wells.



Twenty-seven pounds of catfish! J. R. Kozar of Farrell displays the 39½-inch Mississippi cat which he caught in the Shenango River, Mercer County.

Sometimes a man acquires a reputation for wisdom simply because he never had money enough to make a fool of himself.



## KEEN COMPETITION IN LEHIGH MEET

In one of the highlights of the day's program, the five-man trap shooting team of the North End Rod and Gun Club topped the Ontelaunee Rod and Gun Club of New Tripoli, 221 to 220, at the fourth annual field day of the Federation of Sportsmen's Clubs in Lehigh County, staged at the North End club grounds. The Saucon Rod and Gun Club team of Coopersburg placed third in the trap shooting competition with a score of 182.

Despite the rain, more than 700 sportsmen turned out to participate in the events.

Individual high trap score for a member in the county federation was taken by Harvey W. Muth, R. 3, Allentown. On a run of 50 clay birds in the early rain, Mr. Muth, affiliated with the Lehigh County Fish and Game Protective Association, brought down all but two for the singles honor of 48 "dead" birds. Dewey Heimbach, Palmerton, with 48x50 led the score for visitors.

Lehigh university's wrestling coach William Sheridan, Bethlehem, also a member of the Lehigh County Fish and Game Protective Association, Allentown, took first honors in the accuracy contest for plug casting on a total score of 65. W. C. Beitler, Allentown, came out on top in the fly-casting accuracy event.

Beginning late in the afternoon after the rain ceased, several heats were run in the coon dog trials. The first and open trial for all dogs was taken by Sunrise, owned by O. H. Krock, Alburtis. Krock's hound was the first over the line and shared the same distinction for barking under the tree into which the raccoon had been tied.

Individual shooting scores for members of the North End Rod and Gun Club who came out as first in the team competition were: George Kline, 42; A. G. Freeman, 47; Mark Wescoe, 45; William Sorger, 47, and A. Lauster, 40. All scores were placed on 50 blue rocks.

George Sittler, shooting for the Ontelaunee Rod and Gun Club, New Tripoli, broke 46; E. Handwerk, 44; R. G. Heintzleman, 44; Floyd Oswald, 42, and F. Derhammer, 44. Scores for the Saucon Rod and Gun Club, Coopersburg, were posted as: A. Heffner, 38; Paul J. Knerr, 37; K. N. Reed, 38; R. Bortz, 33, and Tilghman S. Cooper, Jr., 36.

Off to a late start, the plug and fly casting contests for accuracy were run by Chairman Robert D. Dreisbach. Eliminating the distance cast, all casting was confined to disc and bicycle tires as targets. Throwing a five-eighth ounce plug, William Sheridan placed first with 65. C. Robert Glover, editor of "Let's Go Fishing" appearing in the Evening Chronicle was second with 50.

High winds and rain were equally as discouraging in the fly casting contest but W. C. Beitler came through in first place with 87. Trailing close behind was Mr. Glover with 81. Both Mr. Sheridan and Mr. Beitler received the George Zimmerman prize.

Assisting field chairman Gordon King, of Alburtis, the various committees included: Tilghman S. Cooper, Jr., Coopersburg; Alton Snyder, New Tripoli; Howard Heffner, Macungie; John Craig, Slatington; Abraham Zeigler, Limeport; Henry Klausfelter, R. 2, Coopersburg; Forrest B. Kiefer, Alburtis; Gordon Jones, Slatedale; Earl Cope, Emmaus;



Fishing for lake trout in Harvey's Lake, Luzerne County, has long been a favorite sport for Amos N. Kitchen, 71, of Alderson. He is shown holding two fine lake trout he landed, one 28 inches in length and weighing 6 pounds 2 ounces, the other 27½ inches in length and weighing 5 pounds 14 ounces.

Curtis Hendricks, Trexlertown; Franklin Jones, Catasauqua; C. Joel Young, Fullerton; Harry Paff, Barton M. Snyder, James Dunn, James Biery, F. Al Brown, George Guignet, Charles H. Nehf, George Zimmerman, C. Robert Glover, Larry McGee, and Paul Struhar.

## URGES DAM PROJECTS

"I see in the papers that there is a shortage of W. P. A. projects in this state," writes John Foran of Minersville. "Wouldn't it be a good idea for the Fish Commission to sponsor dam building projects for fishing? We have no good fishing waters near Minersville and anyone without a car can't go fishing. If there were dams built, it would be a break

for those people and it would mean an increase in the number of fishing licenses. Sound the fishermen out on this subject in the ANGLER and let's hear what they think of it.

"I hope the time soon comes when dams will be closed to fishing from about April 1 to July 1 to protect the bass. Everyone knows that there are lots of bass caught and taken home before the season opens and it wouldn't be a hardship for anyone to have a two or three month closed season on such waters. It's nothing to catch from 50' to 100 crappies in a day in the spring at Sweet Arrow Lake near Pine Grove, and how many of them die after being put back? We found a can with 17 dead crappies in it and also found a 22½-inch bass dead."



## CENTRE GROUPS HEAR REPORTS ON STOCKING

Five Centre County organizations were represented at a dinner meeting of the Centre County Federation of Sportsmen's Clubs held at the State College Hotel. Representative Kenneth G. Haines and Game Wardens Tom Mosier and Sam Reed were guests of the group.

Reports of the county organization's work and that of the five clubs were given by various officers. The guests were given an opportunity to make suggestions and answer questions presented by the various officers.

According to reports, the organizations in the county carried on an active campaign last year, and all indications pointed towards enlarged membership for the coming year. Participating in the meeting were representatives from Nittany Valley, Pleasant Gap, Port Matilda, Bellefonte and State College.

The possibility of establishing a policy relative to closing of Spring Creek several weeks before the trout season opening was discussed at some length. Members of the Bellefonte and State College groups will contact land owners on the idea. The matter of the time for stocking trout was also considered.

It was reported that 100 ringneck pheasants had been raised at the Penitentiary pens, and released through the eight county groups. Another 100 birds will be held in the pens until December of this year, it was announced.

County President John Doty announced that the county organizations were cooperating in making plans for a Field Day to be held at Fisherman's Paradise next May. Secretary Charles Stoddart, Jr., told of juvenile work and asked for a report from each club.

Warden Sam Reed reported that 625 ringnecks, 2200 rabbits—1100 from the penitentiary area—200 quail and 100 Hungarian Partridge had been released in the county this year. Warden Tom Mosier was "welcomed home" by President Doty. Tom followed by expressing his thanks for making his return possible, and told of the sportsmen's activities in Erie County.

Commenting on membership, Hassel Lose of Bellefonte reported 45 members; Al Bee-secker of Pleasant Gap announced 50 members in his group; Jerry Seeger of Port Matilda listed 95 members; Russell Heckman of Nittany Valley announced a membership of 66 and George Bohn stated the State College membership totaled 212.

Millheim, Howard and Spring Mills were not represented at the meeting, but show the following membership: Howard, 64; Spring Mills, 46; Millheim, 55. The total membership for Centre County is over 550, according to the Secretary's report.

## GATEWAY RALLY DRAWS OVER 400 SPORTSMEN

Nearly four hundred organized sportsmen of Clearfield, Jefferson, Elk and Cameron Counties, and a number of men of statewide importance in game, fish and wildlife circles, gathered at the Elks Assembly Hall in DuBois for a large and successful sportsmen's rally.

It was the first general event to be sponsored by the new Gateway Sportsmen's Association of DuBois, and not only marked another step in the advancement of the organization, but elicited expressions from visiting authorities that the organization is destined to play a prominent part in sportsmen's affairs in the future. They are especially impressed by the fact that the Gateway Association represents a merger of half a dozen smaller associations, and the strengthening of the general program through which all of them were striving to attain the same goal.

M. P. Anderson, former head of the Brockway Sportsmen's Association, acted as master of ceremonies of the meeting after it had been opened by J. L. Phillips, president of the Gateway. A number of outstanding sportsmen were introduced and some of them took advantage of the opportunity to express themselves.

Archie Haines, of St. Marys, president of the North Central Division of Sportsmen's Clubs, was the first speaker and devoted himself to the advantages that are to be had from organized effort. He cited the Clarion River project as an example of what can be done and praised the DuBois leaders for their initiative and forming a strong body here that may be able to produce highly valuable results for the sportsmen of the vicinity.

Joseph Barclay, of Punxsutawney, a director of the state federation of sportsmen's clubs, secretary of the North Central Division and of the Jefferson County unit, Robert Henderson, of Brockway, president of the

Jefferson County Association; Dean Davis, of Punxsutawney, Jefferson County Fish Warden, Clyde E. Laubaugh, of DuBois; new local Game Protector Morris E. Decker, keeper of the Penfield Game Refuge; and N. O. Lewis, R. Flemming and J. Harrington, of the Old Town Sportsmen's Association, of Clearfield, also were introduced.

M. E. Sherman, division superintendent of the State Game Commission at St. Marys, was the first of the two main speakers on the program. He dwelt upon the work that has been done by sportsmen, pointing out that Pennsylvania's hunting and fishing was brought about by hard work upon the part of farseeing leaders.

"In my day I have seen the white-tailed deer of Pennsylvania become almost extinct by unrestricted killing", he said. "And I am thankful that I have seen the day that the organized sportsmen of Pennsylvania have brought about regulations and restrictions that have permitted the white-tailed deer to come back to the point where they are so plentiful that in some sections they are nuisances."

Rev. Samuel Truscott, of Dalton, a member of the Fish Commission, was the final speaker. Rev. Trescott, a wildlife leader in the eastern part of the state, came to DuBois early for his speaking engagement, and made a visit to the Clarion River east branch project at Glen Hazel. He spoke at length upon the organization and policies of the Fish Commission, dealing especially with its finances.

He spoke of stream improvement and was particularly enthusiastic about the East Branch of the Clarion River, which he declared has been developed into the finest fishing project in the state. He told of his visit and of the fact that the stream was one of the few in the state to stand up under the pressure of the recent drought. He said that pictures of the project taken on September 1, when the drought was at its height, showed water flowing over the dams, while pictures of Kettle Creek, Young Woman's Creek, Driftwood Main, Portage and of the Susquehanna River showed them to be practically so dry that fish could not live in them.

He praised the Gateway Association for its enthusiasm and held the project up as a sample of the work that can be done through organized effort.

When he concluded the officers of the Gateway Association were introduced, viz: J. L. Phillips, president; George Eck, vice president; H. F. Dubroux, recording secretary; F. J. Baker, financial secretary; E. F. Brasseur, treasurer; Sylvester Grach, chairman of game committee; Paul Alberts, chairman of fish committee; and William McCracken, chairman of the junior division committee.

Invitations were extended to interested sportsmen to enroll and it is understood that nearly 50 names were added to the rapidly growing list. The program was completed with three reels of moving pictures of Pennsylvania wildlife, provided by S. K. Williams, of Clearfield.

Chinese optimism is unquenchable: "To him that hath a full stomach and good digestion, all else is luxury."



A. J. Grey, veteran Torrance angler, caught this 27 inch wall-eyed pike in Felton's Dam on the Juniata River on July 27. Wayland Birch, who took the photo, reports that the big fish had a girth of 14½ inches and tipped the scales at 7 pounds 2 ounces. A stone catfish was the lure used.



TRUSCOTT INSPECTS CLARION PROJECT

Samuel J. Truscott, Fish Commissioner from Dalton, Lackawanna County, spent several days during the week of October 2 in the North Central Division of the State, being escorted over the section by Warden Dean Davis and accompanied in Elk County by Archie J. Hanes, Chairman of the Division and in Clearfield and Jefferson by Joe H. Barkley, Vice-Chairman of the Division.

Mr. Truscott attended Rotary and a Sportsmen's meeting in Clearfield on October 4, where he spoke on conservation and the workings of the Fish Commission, with a report of the finances and rearing and stocking of fish.

On October 5, he visited the stream improvement project on the East Branch of the Clarion River in Elk County. This job meets with the approval of Commissioner Truscott. He stated that it was the best job of stream improvement in the State and believes that there is none in the country that can hold a card to it. He congratulated the Elk County sportsmen and Archie J. Hanes who sold the idea to the sportsmen, a man who has put his heart and many long hours of work in the project. He also congratulated the foreman, for he is an old woods hick who knows his job as well as the Clarion, Archie's father.

Thursday evening Mr. Truscott spoke at a booster meeting of the DuBois Gateway Sportsmen's Association on the program with M. E. Sherman, Division Game Supervisor.

On October 6, Mr. Truscott inspected the North Folk Creek in Jefferson County which is to have a stream improvement (face lifting) project going very shortly.

During the day he visited Little Mahoning Creek and Little Yellow Creek in Indiana County. Both these streams have been undergoing improvement during the past two years.

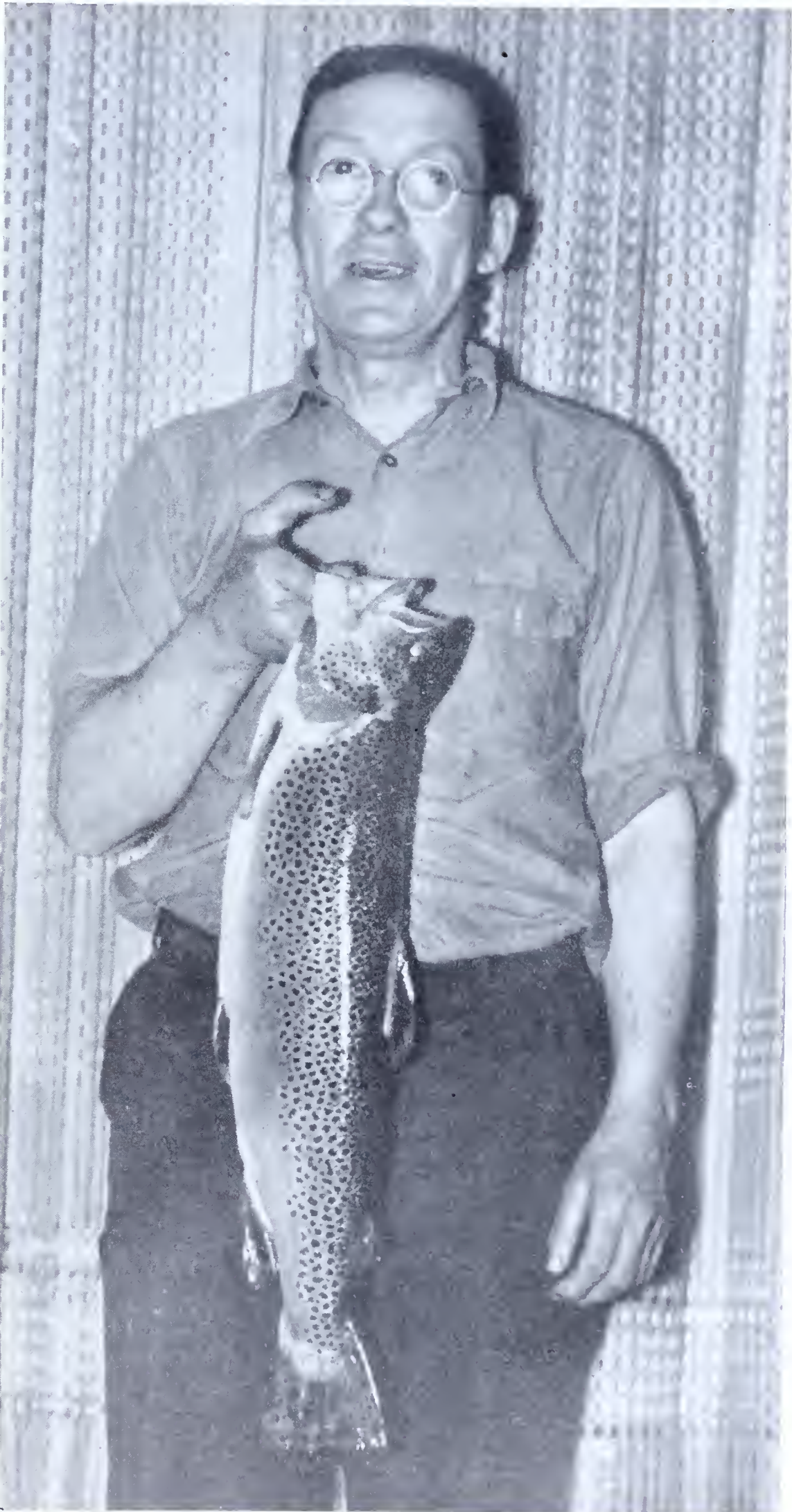
That evening he spoke at the regular monthly meeting of the Punxsutawney Sportsmen's Club.

During all his talks Mr. Truscott spoke of how the organized sportsmen had brought about better hunting and fishing during the past decade, through their efforts and support and suggestions to both the Fish and Game Commissions, and had laws enacted that were of their own suggestion.

He stressed the necessity of the sportsmen acquiring the fishing rights along streams and lakes similar to the set up of the Game Commission in acquiring the hunting rights either by purchase or lease, giving a financial report of the Fish Commission and a report of the increase in the production of fish during the past several years through the increased size of all the hatcheries.

During the three days, Mr. Truscott spoke to 800 or more sportsmen and saw some of the outstanding scenery in the entire State. He has a standing invitation to come back and not to be too long in coming, reports Joe Barkley.

In religious views, many of us are like the little boy who reported on the Sunday sermon: "Mother, I thought I understood the Bible text all right, but the preacher's explanation of it got me all mixed up."



Oscar Forker, Bethlehem, with 25 inch brown trout taken in Saucon Creek, Northampton County, on a streamer fly during the past season. This fish had a girth of 14 inches and tipped the scales at 6 pounds 11½ ounces.





## HERE <sup>A<sub>N</sub>D</sup> THERE IN ANGLERDOM



Big fish, entered in the contest conducted this year by the Harrisburg Hunters' and Anglers' Association at the Harrisburg Hardware Company, and the anglers all of Harrisburg and vicinity, scoring the catches have been announced by W. H. Cleckner. Following were the list of entries: Ben Shindler, a brook trout 16¼ inches in length, taken in Yellow Breeches Creek, Cumberland County; McNear, a 17½-inch brown trout, taken in the Yellow Breeches; H. E. Naugle, a 21-inch brown trout, taken in a stream in Sullivan County; Howard Aston, a 21½-inch largemouth bass taken in the Susquehanna River; Albert Dunn, a 27½-inch wall-eyed pike weighing 5½ pounds, taken in the Susquehanna; J. Howard Lamb, a 17-inch smallmouth bass taken in Conodoguinet Creek, Cumberland County; Cedar Watkins, a 21¼-inch smallmouth weighing 4 pounds one ounce, taken in Susquehanna; Frank Long, smallmouth bass, 17¾ inches, weight 2 pounds 12 ounces, 19¼ inches, 3 pounds 10 ounces, 19¾ inches, 4 pounds 2 ounces, 17 inches, 2 pounds 13 ounces, 18¾ inches, 3 pounds 12 ounces, 19½ inches, 4 pounds, 10½ inches, 4

pounds 4 ounces, 18 inches, 3 pounds 6 ounces, 17½ inches, 2 pounds 9 ounces; H. W. Hoffman, smallmouth bass, 20¾ inches, 4 pounds 8 ounces; Frank Kohler, wall-eyed pike, 25 inches, 4 pounds 14 ounces; H. P. Williamson, smallmouth bass, 19½ inches, 3 pounds 7 ounces, Conodoguinet; H. L. Keller, wall-eyed pike, 28 inches, 6 pounds, Susquehanna River; M. Kanneg, 7 bluegill sunfish having a combined weight of 56½ ounces, Susquehanna River; D. P. Duvall, smallmouth bass 21¼ inches, 4 pounds 2 ounces, Susquehanna River; Frank Long, smallmouth bass, 18¼ inches, 3 pounds 10 ounces, Conewago Creek; I. E. Miller, smallmouth bass, 20¾ inches, 5 pounds one ounce, Susquehanna River, and H. S. Proudfoot, wall-eyed pike, 29 inches, 6 pounds 14 ounces, Susquehanna River.

A wreath to Little Eddie Joe Henninger of Pine Grove, Schuylkill County, for having caught one of the finest smallmouth bass reported from the Susquehanna River in the vicinity of Millersburg, Dauphin County. Eddie was fishing in October with his dad, Albert Henninger, active Schuylkill County sportsman and conservationist, using a dilapidated bamboo fly rod and stone catfish for bait. The stonie that Eddie was using didn't quite suit him, not enough pep, so his father fished out the biggest bait fish in the bucket and placed it on the hook. It had hardly more than struck the water when there came a strong, steady strike that moved deliberately across river. During the battle that followed, the lad refused to let anybody else handle the rod, had his line in his mouth part of the time and used his hands the rest of the time in controlling a surplus of line. Finally, the fish was creeled. It measured 21½ inches in length and tipped the scales at 4½ pounds, a lot of smallmouth bass in any fisherman's language.

Can a bass, if not cut up too badly internally, throw off the effects of a swallowed hook? The following interesting letter from Charley Stambaugh, of the Pennsylvania Game Commission, would indicate that it can. He writes:

"Fishing in the Conodoguinet Creek near Sample's Bridge on Saturday afternoon, I hooked a bass which I immediately realized was a small one, but which had plenty of fight and action. When the bass was brought to my feet, I saw that it was about an 8-inch black bass and at once prepared to release it. However, when I removed my hook which was just fastened lightly to the lower jaw, I noticed that an additional snell or leader about 5 inches long protruded from the mouth of the fish, in addition to mine. I

just took enough time to look down the throat of the bass, and there was no hook in sight as far as I could see. Undoubtedly this bass had a hook firmly imbedded in its stomach, attached to which was the 5-inch snell which had been cut off by another considerate fisherman. Immediately upon its release, the bass shot through the water, evidently in good sound condition despite the hook in its stomach.

"This would seem to support the theory of the Fish Commission that a bass can handle and dissolve a hook, even though the hook has been swallowed. This fish had plenty of vigor both before and after I had hooked it, indicating that its digestive process and general vitality were not materially affected by the imbedded hook. If a bass can continue to forage with a hook in its stomach, it looks as though more hooked bass actually survive than is commonly believed."



Paul Hickes of Huntingdon with an early season catch of brook, brown and rainbow trout scored on Spring Creek, Centre County. He is holding a brookie measuring 17 inches in length, girth and weight not given. Photo thanks to Lewis Green of Huntingdon.



Ranking with topnotch largemouth bass taken this season was this splendid Naomi Lake, Monroe county, fish. It was 24 inches in length and tipped the scales at 7 pounds. Samuel Smith and Fred N. Chase of Parsons, Wilkes-Barre scored the catch. Smith displays the big fellow.





Earl Wright and C. S. Wright of Newport, Perry County, with the alligator killed in the Juniata River near Newport this summer. This 'gator measured 6 feet 6 inches in length and is reported to have weighed approximately 90 pounds. It is reported to have escaped from a carnival at Lewtstown during the summer. Included in the party killing the alligator were Fish Warden C. V. Long and Travelling Game Protector Joseph Cheeklinskie.





# PENNSYLVANIA ANGLER



Extends Christmas Greetings  
To Our Readers . . . May  
You Have Many Tight  
Lines in 1940



















